The Lumleian Lectures

ON

SOME PROBLEMS IN CONNEXION WITH APHASIA AND OTHER SPEECH DEFECTS.

Delivered before the Royal College of Physicians of London on April 1st, 6th, and 8th, 1897,

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LECTURE III.[1] (*concluded from p. 1137*).

Delivered on April 8th, 1897.

(5) DEFECTS RESULTING FROM ABNORMAL CONDITIONS OF THE LEFT VISUAL WORD-CENTRE.

THERE is not the same variety in the defects of speech caused by disease of the visual word-centre that is to be met with as a result of disabilities in the auditory word-centre. This is apparently due to the fact that in the great majority of persons voluntary revival of words occurs primarily in the auditory word-centre, while the visual word-centre is called into activity mainly by stronger stimuli—either by those coming to it through associational fibres or by still stronger incitations that come directly from without. It is only in comparatively rare cases, as we have seen, that the visual word-centre takes the place occupied in the great majority of individuals by the auditory word-centre, as the seat in which words are primarily revived in silent or in spoken thought. Consequently the speech defect known as "amnesia verbalis" occurs almost only as a result of a lowered functional activity in the auditory word-centre, and only in extremely rare cases (where the individual is a very strong "visual") as a result of mere lowered activity in the visual word-centre. Since a volitional stimulus is weaker than that which comes through an associational channel from a centre strongly aroused, and weaker still than that which comes to the centre directly from without, and since a lowered nutrition or diminished molecular mobility of a centre from any cause might lead only to a failure in the centre to respond to the weakest stimuli, it is to be expected that such results in relation to language would show themselves only in connexion with the centre accustomed to respond to such stimuli (namely, the auditory word-centre), and would be almost absent in connexion with the visual word-centre.

Consequently we know next to nothing about the effects of mere functional degradation in the visual word-centre—that is, of slight disabilities such as when occurring in the auditory word-centre are productive of the various degrees of amnesia verbalis already described. All that can be said is that when such functional degradation of the visual word-centre is present it would (*a*) in the rare case of the patient being an extremely strong "visual" of itself tend to produce amnesia verbalis, as was seen in a patient under the care of Charcot, whose case is referred to by Ballet[2]; or (*b*) even in an "auditive" tend greatly to aggravate any disability that may have been caused by a co-existing defect in the auditory word-centre, and also to hinder recovery therefrom; further (*c*) that where the functional defect involves both word-centres the amnesia ought to be more than usually bad and probably associated with more or less of paraphasia.

Effects produced by the destruction of the left visual word-centre.—We have to pass, then, at once to a consideration of the effects produced by destruction of the left visual word-centre, which is now generally supposed to be situated in the angular, and possibly in part of the supra-marginal, convolution. These effects will be found to vary in different individuals, just as variation was found to be the case when we had to do with the results of lesions in the left auditory word-centre.

One important difference between the effects of lesions of the visual word-centre as compared with those following upon lesions of the auditory is that speech is very little, if at all, interfered with. There is no well-marked aphasia or paraphasia, only a very slight amount of paraphasia in some of the cases.[3] That there should at times be such slight disturbance of speech is not to be wondered at if we bear in mind the close functional relationships of the visual and the auditory word-centres, and how easily therefore the functions of the latter may be disturbed by a lesion in the former.

It is often found that word-blindness is associated with right-sided homonymous hemianopsia—that is, on the same side as paresis of the limbs—for there is often no complete hemiplegia in these cases. The hemianopsia is generally due to destruction of the optic radiations of Gratiolet; but where the lesion is quite limited to the cortex these fibres will not be involved, so that hemianopsia is not a necessary accompaniment of word-blindness.

Agraphia also is a symptom sometimes present and sometimes absent in cases of word-blindness. The presence or absence of this symptom is, however, of much more fundamental importance than the presence or absence of hemianopsia. It is best, in fact, to divide cases of word-blindness into two categories—namely, (*a*) cases in which the word-blindness is associated with agraphia, and (*b*) cases in which there is no agraphia. In the latter group it is found that the individuals can write as well with the eyes closed as when they are open, and further that they are, after a brief interval, unable to read what they themselves have written.

(*a*) In the cases where agraphia is present it is commonly found that such patients are capable of writing their names correctly, although they can write nothing else. The signature is an emblem which may, by reason of its familiarity, be executed by the cheiro-kinæsthetic centre with the smallest amount of prompting; and it would appear that this prompting may come from the common visual centre in cases where the left visual word-centre is destroyed. Similarly a word-blind patient may be able to recognise his own name when he sees it, though apart from this there may be complete alexia. As Déjerine says[4]: "He recognises it by its general form, by its physiognomy, and not by the assemblage of letters of which it is composed"—just, in fact, as he would recognise a geometrical figure or any other drawing. Differences of degree are, however, met with in word-blindness. In some cases, though the patients are unable to recognise single words (word-blindness), they can recognise individual letters; whilst in others not even letters can be recognised (letter-blindness). These two forms were distinguished by Kussmaul, though he sought to make a more radical distinction between them—believing that they represented differences in kind rather than of degree. All intermediate forms, however, may be met with. Sometimes patients will recognise certain letters and not others; and in one case recorded by Batterham vowels only were recognised.

In illustration of this first group of cases, where word-blindness is associated with agraphia, I will quote one of a very typical character that has been reported by Déjerine.[5]

CASE 32.—A man, aged sixty-three years, seven years previously had a slight attack of right hemiplegia, not accompanied by speech troubles, which at the time of his entering the Bicêtre (Feb. 12th, 1890) had almost completely disappeared. Soon after his admission he found one morning that he could no longer read his newspaper. On examination it was ascertained that there was no trace of word-deafness: he easily understood all questions. He was unable to understand either print or handwriting, and could not even name a single letter of the alphabet. On the other hand, he could recognise his name and could name all objects shown to him. Right lateral hemianopsia was believed to exist. There was paraphasia both in his spontaneous speech and in his repetition of words, so that it was sometimes difficult to understand what he said. When asked to write he held the pen most awkwardly and could write nothing but his name, and that so badly as to be scarcely recognisable; and whether he attempted to write spontaneously, from dictation, or to copy he wrote only his own name, "Séjalon," in an indistinct fashion. On March 10th the initial paraphasia had almost completely disappeared, so that he could readily give particulars concerning his former life and his present condition. His writing was as bad as before, but he held the pen much better. He could not write a single word spontaneously or from dictation, nor could he copy—he made mere meaningless strokes only; but he could write from dictation a numeral or a number composed of not more than two figures. There was complete alexia, as before; he recognised his own name, but nothing else. On Nov. 5th, 1890, the

[1] Lectures I., II., and part of III. were published in THE LANCET of April 3rd, 10th, and 24th, 1897, respectively.

[2] Loc. cit., p. 161.

[3] For instance, in Nos. 44, 45, 47, 49, 50, and 52 in Mirallié's list of cases included under the heading "Cécité Verbale" (pp. 152-157).

[4] Comptes Rendus de la Société de Biologie, 1891, p. 200.

[5] Loc. cit., p. 197.

word-blindness was slightly less. He could then recognise "c" and "g" of the alphabet, but no other letters. He could not make out any word, but he recognised and pronounced numerals and numbers of not more than two figures. The agraphia was as complete as before, both for spontaneous writing, dictation, and copying. Death occurred on Nov. 20th, 1890, and at the necropsy a focus of softening having "the diameter of a five-franc piece" was found occupying the inferior three-fourths of the angular gyrus, all the rest of the cortex, including the foot of the third and also that of the second frontal convolution, being absolutely intact. Section of this left hemisphere showed that the softening extended inwards in a wedge shape as far as the posterior cornu, destroying the greater part of the optic radiations of Gratiolet. In the right hemisphere two small foci of softening of the size of a small nut were found—one in the putamen, the other in the anterior part of the thalamus, which destroyed by their union the genu of the internal capsule. (Figures of the lesion in the left hemisphere were given.)

The absolute nature of the agraphia in this case is a noteworthy feature, and may perhaps be accounted for in part by the fact that writing was a comparatively unfamiliar exercise to this man, who was a mere day labourer. Damage to the visual word-centre under such circumstances might be expected to produce its maximum results, while a similar lesion in the case of an educated man much accustomed to write might lead either to no agraphia or to a much less pronounced form of this defect. Another point of interest is the temporary nature of the paraphasia that was at first set up as a consequence of this lesion limited to a part of the angular gyrus. We can only conclude, therefore, that it was due to a sympathetic disorder established for a time in the contiguous auditory word-centre. A third point of interest is to be found in the strict localisation of the lesion to the angular gyrus and its sufficing to produce complete alexia with agraphia.

Another very similar case, and almost equally valuable, has been recorded by Sérieux,[6] of which the following is an abstract.

CASE 33.—A woman, aged seventy-three years, entered the asylum of Villejuif on Sept. 29th, 1891. At the first examination it was ascertained that the patient heard and comprehended all questions well, but that there was some amount of amnesia verbalis. Reading and writing were impossible, although vision was good and she could recognise surrounding objects. After a time, being troubled by her inability to write, she practised much with her pen. At first she could only copy the letters whose outline is most simple, such as m, n, u, o, a. Her alphabet was almost composed of these letters, and they were sometimes grouped so as to give the appearance of words—such as uu, aa, monon, mono, muosi. In the month of November the following observations were made: "Intelligence normal. No motor paralysis. No appreciable word-deafness. Slight paraphasia. No object blindness. Word-blindness is almost complete; she recognises a certain number of letters only. Hemianopsia absent. Agraphia is also complete for spontaneous writing, as well as for dictation and copying." On Nov. 23rd the patient had an abrupt apoplectic attack, she became comatose, and died. At the necropsy, in addition to a recent hæmorrhage into the right hemisphere, with extravasation into the ventricles, there was found one old lesion in the left hemisphere. This was a focus of yellow softening rather larger than a five-franc piece, which involved the whole of the angular gyrus and the greater part of the supra-marginal lobule. The contiguous convolutions of the superior parietal lobule as well as the posterior extremities of the first and second temporal convolutions were slightly yellowish and atrophied. All the other convolutions of this and of the other hemisphere were healthy.

Here, although the lesion was more extensive than in the last case, we find both the word-blindness and the agraphia rather less complete. The slight paraphasia, which in this case was persistent, may have been kept up by the slight degeneration of the posterior extremities of the two upper temporal convolutions. It is expressly stated that the patient did not suffer from hemianopsia, so we must conclude that the lesion was superficial and did not extend deeply enough to involve the optic radiations. Another case in which word-blindness and agraphia were produced by a patch of softening limited to the left angular gyrus has been published by Berkhan,[7] though under a very misleading title.

(*b*) In the second group of cases word-blindness is not associated with agraphia, the individuals being able to write, and as well with the eyes closed as open. As I have already said, a precisely similar group of symptoms may be produced in a totally different manner, quite independently of destruction of the left visual word-centre. These cases will be fully considered in the next section.

The effects of destruction of the left visual word-centre are liable to vary much in different individuals in accordance with their different sensorial aptitudes and different degrees of education, just as we have found the results of destruction of the left auditory word-centre to present marked differences in different cases. The results already described under group (*a*) are those which most frequently follow when the left visual word-centre is destroyed in ordinary individuals. But suppose a similar lesion to occur in a person who is a strong "auditive" but a weak "visual," and at the same time, perhaps, an educated person who has previously been in the habit of writing much. It may happen in such a person, after the stage of learning to write has well passed, that the activity of the visual word-centre may be reduced to a minimum during the execution of such acts. We have seen reason to believe that the words about to be written become nascent first in the auditory word-centre, and it seems probable that in individuals with the endowments above mentioned this centre, rather than the visual word-centre, may be the one which acts upon and coöperates with the cheiro-kinæsthetic centre, just as we have seen that in certain persons who are strong "visuals" the visual word-centre may be capable of coöperating directly with Broca's centre for the production of articulate speech I contend, therefore, that the preservation of ability to write in cases where there has been word-blindness and where the visual word-centre has subsequently been found to be destroyed is to be explained in this way—that is, by supposing that the auditory word-centre, instead of acting, as it usually does, by rousing the visual word-centre to conjoint action, in these cases acts directly upon the cheiro-kinæsthetic centre by way of the commissure *f f* (Fig. 5).[8] The writing thus produced may be fairly good and without mistakes, though that of other patients may show defects of a paragraphic type. The handwriting itself, too, is usually larger than that which was previously customary to the patient. There is also the peculiarity that these patients can write as well with the eyes closed as when they are open, and the still further peculiarity that they cannot subsequently read what they have written except by a manœuvre which causes a stimulus to pass in the reverse way—that is, from the cheiro-kinæsthetic centre back to the auditory word-centre in the direction *f' f'* (Fig. 5). This is brought about by passing the tip of the finger over the outlines of the letters and so reading off the result. The possibility of this mode of reading by the "tip of the finger" seems to have been first noticed in a word-blind patient by Westphall.[9]

There are only two cases with necropsies that I can bring forward in illustration of this group, and unfortunately they are not very well defined cases, being rather complicated, not only clinically, but also by reason of the lesions found at the necropsy. The first of them is also, I believe, the earliest recorded instance of any such defect. It is a remarkable case that was published long ago by Broadbent.[10] The real significance of the case was not, I believe, recognised by him at the time, nor was it by myself some years afterwards when I first endeavoured to interpret it.[11] Now I think its leading peculiarities may be explained by supposing the existence of a weak condition, with lowered excitability of the auditory word-centre, together with a destruction of the visual word-centre. The case is well recorded with full details, but the essential particulars are these.

CASE 34.—The patient was a man, aged fifty-nine years, and of considerable energy and intelligence. His illness commenced early in 1870 with sickness, vomiting, and pains in the head. He was restless and delirious, and did not know his wife for a fortnight. He gradually improved, but after this attack remained unable to read either print or writing, though he could write quite well. Twelve months later he was no longer able to write voluntarily, though he could still write correctly from dictation. Soon afterwards when he came under observation he was found to be unable to read. He could see the words, but could not understand them; he could not even recognise or name single letters; the only exception to this being that he recognised his own name, whether printed or written. His voluntary speech was free except that he was amnesic and much at a loss for names. If a hand or an article of clothing, or any other familiar object, were shown him, he was quite unable to name it, while if the name came up in conversation he spoke it without hesitation. He also immediately recognised the names of common objects when he heard them. Thus, asked the colour of a card he could not give it. "Is it blue?" "No." "Green?" "No." "Red?" "Well, that's more like it." "Orange?" "Yes, orange." A square and a circle were drawn and he was asked to name either. He could not do it, but when the circle was called a square he said, "No, but that is," pointing to the proper figure. He wrote from dictation and took notes of instructions as to the day and hour of subsequent visits (which were seen to be correct), saying he was very forgetful and might make mistakes. He would be utterly

[6] Mémoires de la Société de Biologie, 1892, p. 13.
[7] Archiv für Psychologie und Nervenkrankheiten, 1891, p. 558.

[8] It is worthy of note that both Kussmaul and Spamer seem to think that this is the ordinary way in which writing is effected (see Kussmaul, loc. cit., p. 771).
[9] Zeitschrift für Ethnologie, 1874.
[10] Transactions of the Royal Medical and Chirurgical Society, 1872, p. 162.
[11] Brain as an Organ of Mind, 1880, p. 645.

unable shortly after to read his own writing, but relied on his wife making out the notes he took. He was a vestryman, and still always attended the meetings of the vestry. He was not able to take part in the discussions as he had formerly done, but it amused him, and he added, "But I dare say I am as useful as many of them still." Broadbent adds: "He was a remarkably intelligent man, cheerful and energetic, even under his affliction. He employed in conversation a very extensive vocabulary, usually speaking fluently, sometimes stopping for want of a word (usually a name), rarely using wrong words (for which I was on the look out), the only ones I have notes of being 'soup' for 'supper,' 'nephew' for 'grandson.'" He remained under observation from May 8th to June 1st, 1879. On June 21st he had a severe apoplectic attack, due to ventricular hæmorrhage, and died within forty-eight hours. The recent extravasation had torn its way into the left temporo-sphenoidal lobe, in which there was a focus of softening, though its extent could not be ascertained in consequence of this irruption of blood. Of principal significance, however, were two old blood-clots, the size and situation of which are thus described: "One about the size and shape of an almond was closely embedded in the infra-marginal gyrus between the deep parallel sulcus on one side and the secondary small gyri on the lower wall of the fissure of Sylvius on the other, about opposite the junction of the upper third with the lower two-thirds of the descending cornu. The other was further back and on a higher level, almost exactly corresponding in situation with the posterior end of the fissure of Sylvius externally and with the junction of the descending cornu with the body of the ventricle internally; in fact, it occupied the thickness of brain substance separating the extremity of the fissure from the ventricle. It was about the size of a bean, yellow, and very tough."

It seems pretty clear that the second of these blood-clots must have been situated in the angular gyrus, whilst the first of them was situated somewhere near the middle of the upper temporal convolution, and therefore that the patient's alexia was due to destruction of the visual word-centre. Notwithstanding the damage to the upper temporal convolution and the existence of an ill-defined amount of softening in the white substance of the temporal lobe, there was obviously nothing approaching to word-deafness in this patient. The only means, therefore, of explaining his ability to write with the right hand is by supposing that his cheiro-kinæsthetic centre must have received its stimulations from the left auditory word-centre, even though the trifling verbal amnesia showed that this centre was slightly weakened.

Another case which, as it seems to me, should find its place in this group has been recorded by Osler,[12] of which the most important details are these.

CASE 35.—A man, aged seventy-two years, applied at the Philadelphia Infirmary for Disease of the Nervous System on Nov. 14th, 1888, complaining of uneasy sensations in his head. He was a healthy, vigorous looking man, perfectly intelligent, and spoke well and clearly. It was not thought at first that there was anything the matter with him beyond slight headache; but it was noticed that he had occasional difficulty in getting the word he wished, and this circumstance led to a more careful examination. For some time past he had not felt so well as usual. On Nov. 1st, while at his supper in a restaurant, he found that he could not read the daily paper. He was sure that this came on quickly, and it had been his chief annoyance, as he was an ardent politician. He had no definite headache, but complained of a diffuse uneasy sensation. Though he spoke clearly and intelligently, and uttered some sentences without interruption, replying promptly and fluently to questions and evidently understanding everything, there was very distinct speech disturbance. Thus, for some time he could not give the address of his residence. He said he knew where it was, but could not utter the words. He gave the first name of the man with whom he lived, but could not give the second. He could not name his own occupation, but said, "Keep, keep, keep; Oh, you say it for me." When told "bookkeeper," he repeated it distinctly. He occasionally misplaced words. In referring to a wetting which he had spoken of he said, "Deliberate attacks of wet dress." When a printed or written page was presented to him he did not appear to comprehend the words. The word "Philadelphia" at the head of a hospital blank he read "P, r, l, n, g, r, e, k." When told that it was Philadelphia he replied, "Oh, certainly it is, I've known it for sixty-five years." His age, "72," written on a slip of paper, he read "213." He did not recognise the words "Cleveland" and "Harrison" at the top of a newspaper column, but when they were read to him he said, "I know all about them" and began making some very shrewd observations. He could write his name, but said that since his failure to see distinctly he did so with difficulty. He wrote as well with his eyes shut as when they were open, but did so with hesitation. He wrote the name of the hospital, and the words "Philadelphia Record." He could not read the words of his name after he had written them. He named objects held before him quite readily. On examination, right lateral homonymous hemianopsia was found. For the first two weeks of his stay in the hospital there was no special change. On one occasion he wrote the word "record" when told to, but after he had written it he spelled it "freedom." On Dec. 8th he talked less freely. He spoke intelligently and plainly at first, but after a few minutes it was difficult to understand what he stated. There were no additional ocular changes. The grip in the hands was equal. He walked with a somewhat tottering gait, though there was no actual paralysis. Early in January, 1889, he became distinctly weaker, duller mentally and more restless, and on the morning of Jan. 15th he was found in a semi-comatose condition, completely paralysed in the right arm, and incompletely in the right leg. He died on the following day. At the necropsy softening was found of the left supra-marginal lobule and of the white substance of the lower part of the angular gyrus; also of the white matter of the posterior parts of the first and second temporal convolutions. There was likewise complete softening of the white matter between these convolutions and the lateral ventricle (posterior horn); while another area of softening two inches in thickness and an inch in breadth was found in the white substance of the temporal lobe, which externally touched the grey matter of the third and the base of the second temporal convolutions. Concerning the focus of softening in the substance of the left hemisphere Osler says: "Posteriorly the softening did not extend behind a line drawn across the level of the parieto-occipital fissure. The white matter of the occipital lobe was firm, and the grey matter of the cuneus was uninvolved." The right hemisphere showed no lesions.

It is, of course, impossible to say how much these areas of softening may have extended during the last four or five weeks of this patient's life, when he seems to have become gradually worse; or, in other words, we cannot say how much more limited the lesion may have been during the first week that he was under observation, to which period the above detailed clinical record pertains. It seems clear, however, that the clinical symptoms were of the type now under consideration—that is to say, that there was no word-deafness, but that the patient was affected with word-blindness without agraphia. On the other hand, it is equally clear that even at the end, when the pathological lesions had attained their maximum development, the softening had not extended into the occipital lobe. We seem, therefore, driven to the conclusion that the word-blindness must have been due to the softening of the angular and the supra-marginal gyri.

What I take to be another example probably belonging to this group is to be found in a patient under the care of Charcot, whose case has been recorded in great detail by Bernard.[13] It is an extremely interesting case, and here, as in that of Sérieux, previously quoted, the destruction of the visual word-centre does not seem to have been complete, as the patient could still recognise individual letters. The following are some of the principal details.

CASE 36.—A man, aged thirty-five years, after unusual excitement, was suddenly seized with right hemiplegia and loss of consciousness. The next day, on recovering consciousness, he stammered and substituted one word for another. At the end of three weeks the disturbance in speech had almost entirely disappeared; the hemiplegia had been gradually subsiding, so that he could now hold a pen and write very legibly. About this time, wishing to give some order about his business affairs, he took a pen and wrote what he wished to have done; then, thinking he had forgotten something, he asked to see the letter that he had just written, but found he was unable to read it. He had been able to write, but could not read what he had written just before. He was also unable to read printed matter. He was seen five months after the onset of his illness by Charcot, who ascertained that there was no longer any hemiplegia or aphasia of motor type, but that in addition to the alexia there was a forgetfulness of a certain number of nouns and proper names. It was observed that he could write a long letter without any notable mistakes in orthography. "I write," he said, "as if I had my eyes shut; I do not read what I write." In fact he wrote quite as well with his eyes closed. Having written his own name he was asked to read it. "I know very well," said he, "that it is my name that I have written, but I can no longer read it." Nevertheless, when it was insisted upon that he should read some written words, it was observed while he was making efforts to do so that with the tip of his right index finger he traced one by one the letters that constituted the word, and he was thus able with much trouble to say what the word was. Or else when he was striving to read he traced in the air with his finger the letters placed before him. It was found that he had much more difficulty in reading print after this fashion than ordinary writing, apparently because of his lack of practice in tracing the former kind of characters. Again, if when his eyes were closed a pen were put into his hand and the latter guided so as to make it write certain words, he was able to say immediately and without hesitation what those words were. He knew separately all the letters of the alphabet, except q, r, s, t, and especially x, y, z. Though he could not make out these latter letters when they were isolated, he nevertheless wrote them easily when they formed part of a word. Numerals he recognised well, and was able easily to perform certain simple operations; but when the multiplications were a little complex he made mistakes. This patient suffered also from right lateral hemianopsia.

In the absence of a necropsy it cannot be definitely said that this case belongs to the group now under consideration rather than to that which is next to be considered. Looking to the fact, however, that a hemiplegic condition existed at first, that there was no hemianæsthesia or hemiachromatopsia, and to the very limited nature of the clinical defects subsequently remaining, it seems to me distinctly less probable that the patient's condition was due to lesion in the occipital region than to one further forward which also involved the visual word-centre itself. If that were the case, the reading by means of kinæsthetic impressions would mean that the excitations of that centre produced by the finger tracing successively the outlines of letters must have been conveyed backwards along the commissure *f' f'* (Fig. 5) to the auditory word-centre, there arousing the corresponding auditory word memories, and subsequently passing over to Broca's centre preliminary to articulation of the words.

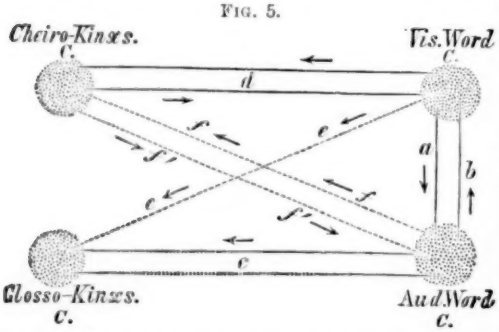
It will be observed that in each of these three cases, in which word-blindness has been present without agraphia the patients have been more or less educated persons well

[12] American Journal of Medical Science, March, 1891, p. 219.

[13] De l'Aphasie, 1885, pp. 77-90.

accustomed to write, and that in the first two, at all events, the incitations could not have come during their illness from the damaged visual word-centre. Therefore it seems only open to us to suppose that these patients were able to write spontaneously or from dictation simply because they were able to call up the familiar activity of the cheiro-kinæsthetic centre directly at the instigation of the auditory word-centre. It is well known that many voluntary movements during the

FIG. 5.



period that they are being acquired, and sometimes for long afterwards, require for their execution the active coöperation of the visual centre, though at a later period the guidance of the kinæsthetic centres may suffice for their production.

(6) DEFECTS RESULTING FROM ISOLATION OF THE LEFT VISUAL WORD-CENTRE.

Isolation of the visual word-centre is a term employed here in the same sense that isolation of the auditory word-centre was previously spoken of—it is not a complete isolation, but merely a cutting of the centre off from all its own afferent fibres, as well as from all communication with the corresponding centre of the opposite hemisphere. The clinical condition itself was first referred to by Wernicke[14] as a companion to the state described by Lichtheim as subcortical sensory aphasia or isolated speech deafness. Wernicke named this condition "subcortical alexia," while it has since been re-christened by Déjerine (who is followed by Mirallié) as "pure word-blindness." The question as to which nomenclature is to be adopted is therefore a little embarrassing. Seeing, however, that, as I have shown, each of these clinical groups of symptoms may be produced in a double way—that is, either by cortical or by subcortical lesions—it seems clear that the term "subcortical" as applied to these conditions by Lichtheim and by Wernicke would, if preserved, lead to great confusion. It seems best, therefore, to adhere to Déjerine's nomenclature and speak of "pure word-deafness" and "pure word-blindness" respectively, but with the understanding that these defects are not necessarily due to subcortical lesions.

The cases of pure word-blindness with which we are now concerned, in which the visual word-centre remains intact, are comparatively few in number. Three complete cases have been recorded with necropsies, whilst of two others the clinical details only have been published. Although the two latter cases probably belong to this type, there is, of course, the possibility that they may rather belong to the second group of cases included in the last section. I shall first give some brief account of the three complete cases, and subsequently discuss the mode in which the lesions found may be considered to be capable of giving rise to so remarkable an assemblage of symptoms.

The first of these cases to be recorded which was followed by a necropsy is one of great value; it was most carefully observed, and has been published in very full detail by Déjerine.[15] The following is the abstract that he gives by way of preface to the fuller details, which will, however, well repay a careful study.

* CASE 37.—This patient was a man, aged sixty-eight years, of more than ordinary intelligence and culture. Word-blindness was complete, both verbal and literal. Musical blindness was also complete. There was preservation of ability to read figures and also to calculate. There was no trace of word-deafness, no trace of disturbance in articulate speech, and internal language was preserved. There was no object-blindness or optic aphasia; mimicry was perfect and very expressive; there was perfect preservation of spontaneous writing and of writing from dictation—the patient could thus write whole pages correctly. Writing from a copy was very difficult and defective. There was partial right lateral hemianopsia with complete hemiachromatopsia. There was integrity of motility, and of sensibility general and special, as well as of the muscular sense. The same symptoms persisted for four years. Sudden death occurred after the patient had presented for ten days total agraphia with paraphasia, without any trace of word-deafness. There had been perfect preservation of mimicry and of intelligence. At the necropsy recent lesions were found in the left hemisphere in the form of red softening in the inferior parietal lobule and in the angular gyrus. There were old lesions (*plaques jaunes*) situated in the lingual and the fusiform lobules, in the cuneus, in the white substance of the occipital lobe, and in the posterior extremity of the corpus callosum. The optic radiations were markedly atrophied. The right hemisphere was intact.

The notable features of this case are the absence of any hemiplegia; the combination of complete right lateral hemiachromatopsia with partial right hemianopsia; the absence of word-deafness or speech defect of any kind; the absolute word-blindness coupled with ability to write freely both spontaneously and from dictation, whilst ability to copy writing was very defective; and the length of time that these symptoms lasted without change. The subsequent sudden supervention of complete agraphia associated with paraphasic speech, followed by the discovery of a recent lesion in the angular gyrus and adjacent parts, were also very significant features of the case. Comments upon the old lesions found had better be reserved till some account has been given of the other two cases.

These cond case was recorded by Wyllie[16] two years later, some of the principal details being as follows.

CASE 38.—A man, aged seventy-two years, formerly a clerk of the works, but then a collector of accounts for mercantile men, came as an out-patient to the Royal Infirmary of Edinburgh on Dec. 12th, 1889. About six weeks previously, when in the street, he had a very severe attack of vertigo, and ten days later a feeling of coldness and heaviness throughout the right half of the body. At this time also he discovered that he was word-blind. He could not read even his own name. At first he was even letter-blind, but before coming to the infirmary he had recovered sufficiently to be able to recognise individual letters, though he could read no single word without spelling it. On examination no right hemianæsthesia was found, but typical right hemianopsia, with marked contraction of the remaining left halves of the fields of vision. The contraction was so marked that he saw things as if looking at them through a tube. There was no agraphia; he could write well and made very few mistakes in spelling, such as he did make being evidently due not to his cerebral condition but to defective education. Although he expressed himself in writing with ease and fluency, he could read the writing only word for word, after spelling each word letter by letter. As to spoken speech, the patient expressed himself with great liveliness and volubility, being never at a loss for a word except in the case of proper names, which he was apt to forget. There was no forgetfulness of the names of things and no paraphasia. His intelligence seemed very good, but he complained of a sense of confusion in his head. This, together with his word-blindness, had made him quite unable to continue his occupation of collecting accounts. He died four years later (Jan. 23rd, 1893, of hepatic disease, with jaundice, and at the necropsy the following lesions were found: In the left hemisphere there was atrophy of the inferior surface of the occipital lobe, with a shrivelled condition of the whole lobe. Subsequent examination of sections showed softening of the white substance forming the floor of the posterior cornu of the lateral ventricle, the cornu itself being extremely dilated. The grey matter of the occipital convolutions was not involved in the softening, but the white substance was atrophied from the tip of the occipital lobe as far forwards as the cerebral peduncles. The convolutions affected were the lingual and the fusiform lobules, together with the posterior third of the gyrus hippocampus. The angular gyrus and Broca's convolution were intact.

The third case was reported in the same year by Redlich,[17] of which the following is an abstract.

CASE 39.—A man, aged sixty-five years, a copyist, had some slight cerebral symptoms for one month only in 1891. A year later he had an apoplectic attack, and on examination two days afterwards his intelligence was found to be slightly enfeebled and right lateral hemianopsia was detected. There was also slight paresis of the right arm and the right side of the face, together with slight diminution of sensibility throughout the right side of the body. There was no word-deafness, and spontaneous speech was unaffected. He had difficulty in naming objects shown to him. He could recognise the number of syllables in words. He sang perfectly both the words and the airs of popular songs. There was complete word-blindness, literal and verbal, both for print and manuscript. He could read numerals slightly. He could only write the first syllable of his name, and could not copy at all. At a second examination, one month later, the following facts were noted. Spontaneous speech was perfect, except that he confused certain words, and had sometimes a little difficulty in finding the right word. The word-blindness was still complete. He then wrote his name very correctly; he also wrote a great number of words slowly and with difficulty, both spontaneously and from dictation, sometimes forgetting a letter. The writing was tremulous, but correct. He copied with difficulty, letter by letter. Death occurred one year and a half after the date of this attack, and at the necropsy the following were the lesions in the left hemisphere: A focus of softening was found involving a great part of the calcarine fissure and the lingual and fusiform lobules, and extending to the posterior part of the occipito-parietal fissure; the cornu ammonis was atrophied;

[14] Fortschritte der Medicin, 1886, p. 463.
[15] Mémoires de la Société de Biologie, Février 27, 1892.
[16] The Disorders of Speech, 1894, p. 340.
[17] Jahrbuch für Psychiatrie, 1894, p. 242.

the cortical softening invaded the white substance of the occipital lobe and of the fusiform lobule, as well as the posterior part of the thalamus, the tail of the caudate nucleus, and the median portion of the corona radiata. Sections in series of the occipital lobe were made and examined microscopically, with the following results. At the tip of the lobe both the white and the grey substance were intact. The focus of softening corresponded with the fusiform lobule, and the inferior half of the lingual lobule. The forceps major was degenerated only in its median portion; its supero-external portion being intact. The tapetum was in part preserved. The inferior longitudinal convolution as well as the optic radiations were degenerated. The hippocampal gyrus was much altered, as well as a part of the third temporal.[18]

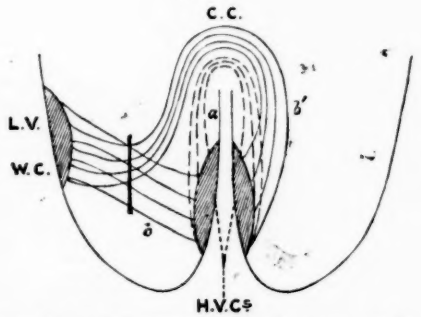
It will be observed that in each of these two cases, as in that of Déjerine, there was no motor paralysis, and only a very slight amount of right-sided hemianæsthesia. There was right hemianopsia in each, but no mention is made of hemiachromatopsia in the cases of Wyllie and Redlich, or of the ability to read words by means of kinæsthetic impressions, though both were present in the case of Déjerine.[19] It seems highly probable, however, that one if not both of these characteristics might have been met with had they been specially looked for. They both existed in one of the two incomplete cases before referred to—namely, in one observed by Gaucher, and recorded by Mirallié[20]; while in the second of these cases, recorded by Batterham,[21] though there is no mention of hemiachromatopsia, the ability to read words by aid of kinæsthetic impressions was present. Word-blindness was not complete in this case, and Batterham says: "When asked to spell out a word written in the 'round hand' of the copy books, she failed with several letters; but on being told to copy the unrecognised signs, or to run her pencil over them as if writing them, she in most cases recognised their name and significance. This experiment was repeated several times, and the patient was delighted to find that she could 'jog her memory' of letters in this way." Both these cases are well reported, and are worthy of careful study, although there is no record as to the pathological causes of the clinical condition.

The lesions found in each of the three cases where a necropsy was made have shown a striking similarity. In each there was softening and atrophy of the white substance of the occipital lobe, together with more or less damage to certain convolutions—that is, to the lingual and fusiform lobules as well as the hippocampal gyrus and the cuneus, or, speaking more generally, to some of the convolutions on the under and inner surface of the occipital lobe. It seems quite probable, however, that the lesions of the convolutions may be of little significance so long as there is the presence of extensive destruction of the white substance of the occipital lobe. Nothing more definite can be said on this subject at present. Déjerine attaches most importance to the destruction of portions of the white matter—namely, of that in which would be included the "optic radiations" of Gratiolet, the fibres proceeding from the left half-vision centre to the left visual word-centre, as well as the fibres from the right half-vision centre to this same word-centre. This he indicates in a diagrammatic figure of some complexity.

It is clear from the explanation that Déjerine advances of Case 37,[22] and also from what he says elsewhere, that he does not believe in the existence of auditory and visual word-centres in the right hemisphere in ordinary right-handed persons. On this subject he takes much the same view as Lichtheim, and now explains "pure word-blindness" in a fashion analogous to that by which the latter explained "pure word deafness"—namely, by supposing the severance from the left visual word-centre of the associational fibres connecting it with the general visual centre in each hemisphere (see Fig. 6).

I, however, believe in the existence of a visual word-centre in each hemisphere (though unequally developed), and that the two are brought into functional relation with one another by means of commissural fibres in the posterior part of the corpus callosum. I believe also that each of these visual word-centres would be in relation by other associational fibres with the half-vision centre of its own side (which both of us suppose to be commissurally connected with its fellow); and that Déjerine's form of pure word-blindness may be produced by severance of the associational fibres between the left visual word-centre and its corresponding half-vision centre, together with a lesion of the commissure between the

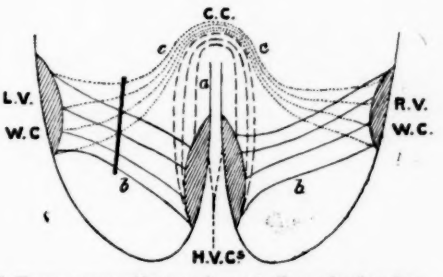
FIG. 6.



A simplified diagram representing Déjerine's view as to the mode of production of pure word blindness. H. V. C., Half-vision centres. L. V. W. C., Left visual word-centre. C. C., Posterior extremity of corpus callosum, containing commissural fibres *(a)* connecting the half-vision centres, and also fibres *(b)* from the right half-vision centre to the left visual word-centre. (The "optic radiations" have been omitted.) The dark line indicates the site of a lesion which would cut off the left visual word-centre from the half-vision centre of each side.

two visual word-centres, in some part of its course. The isolation of the left visual word-centre would thus be complete; and brought about, moreover, in the same sort of way that I have postulated for the isolation of the auditory word-centre in the condition that Déjerine calls "pure word-deafness."

FIG. 7.



A diagram representing my view as to the mode of production of pure word-blindness. C. C., Posterior extremity of corpus callosum. *c*, *c*, Commissural fibres connecting the two visual word-centres. *b*, *b*, Fibres connecting each half-vision centre with the visual word-centre of the same side.

The commissure between the two word-centres may be damaged, in accordance with my interpretation, by the lesion in the white substance of the occipital lobe extending far enough forwards to involve them, just as Déjerine supposes those from the right half-vision centre to have been destroyed; or else by a separate lesion in the posterior part of the corpus callosum, such as was actually found in Déjerine's case, or in the part of it known as the tapetum.[23]

When we consider how one eye suffices for perfect vision, although only one-half of the proper amount of visual fibres goes to each half-vision centre, we may see all the more fully how complete and intimate must be the co-activity of these centres in vision, even when one eye only exists. That being so, it would be in vain with our present imperfect knowledge to attempt to define the actual mode of association of the half-vision centres with their outlying portions which we name

[18] Concerning some of the less familiar, though for us very important, structures mentioned above it may be well to refresh the reader's memory by quoting what Schäfer says in Quain's "Anatomy" (tenth edition, 1893, p. 129), when speaking of the posterior extremity of the corpus callosum. "The fibres," he says, "from the body and upper part of the splenium which curve over the lateral ventricle form the *tapetum*, whilst a large mass of fibres from the splenium proper curves round into each occipital lobe and is know as the *forceps major*."

[19] Déjerine is inclined to think that achromatopsia may be produced by lesions in the lingual and fusiform lobules. If the hemianopsia were complete, however, from destruction of the "optic radiations," there could be no achromatopsia.

[20] Loc. cit., p. 191.

[21] Brain, 1888, p. 488.

[22] Loc. cit., pp. 87-89.

[23] The tapetum may perhaps include the commissural fibres between the two visual word-centres, and it is specially stated in Redlich's case that these fibres were in part degenerated, as also was the forceps major, which probably includes the fibres connecting the two half-vision centres with one another.

visual word-centres. All I can say is that such an arrangement as I have previously indicated seems to me to be much more in accordance with all known probabilities than that of Déjerine, who assumes that the right angular gyrus has practically no visual functions,[24] just as he assumes that the posterior half of the right upper temporal convolution has no auditory functions. What I have said towards the end of the last section but one of the first lecture, as well as what we know as to the modes in which recovery takes place in various forms of speech defect, may be considered to lend support to my view.

As I have already indicated, the two modes of producing pure word-blindness are pretty strictly comparable, *cæteris paribus*, with two modes of production of pure word-deafness. One of these forms, which for the sake of distinction may be termed the parietal type of pure word-blindness, is brought about by destruction of the left visual word-centre in persons by whom writing can be executed under the instigation and guidance of the left auditory word-centre, while the other (Déjerine's form), which might be called the occipital type, is due to isolation of the left visual word-centre from the half-vision centre of its own side as well as from the opposite visual word-centre.

At present there seems no very definite means of diagnosing these two types of pure word-blindness from one another during life. The following considerations may, however, afford some help:—

Parietal Type of Pure Word-blindness.	*Occipital Type of Pure Word-blindness.*
Possibly some right-sided paresis.	Probably no right-sided paresis, but possibly some slight right hemianæsthesia.
Speech often slightly paraphasic.	Speech not affected, or slightly amnesic only.
May be no hemianopsia or hemiachromatopsia.	Hemianopsia always, and when incomplete probably also hemiachromatopsia.

These seem to me to be the only approximations to differential characteristics that can be suggested at present, some of them being based upon the fact that destruction of the visual word-centre may be associated with a lesion in the parietal region, and consequently may be associated with some amount of right-sided hemiparesis; while in the cases of occipital type, if the lesion of the occipital lobe extends sufficiently far forwards, we may get more or less marked hemianæsthesia without any motor paralysis. The association of alexia without agraphia in a person whose speech is not appreciably interfered with, and who has slight hemianæsthesia without paralysis, would, in fact, afford strong presumptive evidence that the pure word-blindness was of the occipital type.

(7) DEFECTS RESULTING FROM COMBINED LESIONS IN THE LEFT AUDITORY AND VISUAL WORD-CENTRES.

It will have been seen from the cases already recorded that destruction of the left auditory word-centre or of the left visual word-centre alone, and especially in the last case, may be quite compatible with the preservation of a fair amount of intelligence. The result is, however, altogether different when both these centres are badly damaged at the same time. The unfortunate individuals thus affected are generally reduced to a most deplorable condition, seeing that they can usually neither speak nor write intelligibly, and that they are unable to understand the speech which they hear or the language they may see either in writing or in print. They can mostly communicate with others, and be communicated with, only by means of signs and gestures; and at the same time they must necessarily suffer a very distinct amount of mental impairment, owing to the blotting out of the principal linguistic symbols by means of which all but their most elementary thinking processes are carried on.

Although this is the kind of condition that has been met with in the great majority of these cases, yet a careful examination of their published records shows that, as in cases where there is destruction of the left auditory word-centre, so here with combined lesions of the auditory and the visual word-centres, a considerable variation is met with in different cases. These variations depend partly upon differences in the relative completeness of the lesion in one or other of these centres; and in cases where one of the centres is incompletely destroyed probably also to a considerable extent upon individual variations in original endowment—that is, upon the question whether the patients are "auditives" or "visuals," as well as in part upon their degree of education. Where the destruction of both the left word-centres has been complete, moreover, variations in symptoms may depend upon the degree of development of the corresponding centres in the opposite hemisphere.

Taking the lists given by Amidon and Mirallié, and including one case by West[25] not contained therein and two of my own, I find seventeen cases in all of this double lesion; of these, it seems desirable to exclude two—one by Chauffard, as the patient only lived three days, and one by Shaw, seeing that the patient was demented and that the clinical record is very incomplete.[26] Of the remaining fifteen cases, in three the lesion was complete in the visual and partial in the auditory word-centre (in Amidon's No. 4, Mirallié's No. 38, and in West's case); in two it was complete in the auditory and partial in the visual word-centres (in Amidon's Nos. 1 and 2); in four cases it was incomplete in both word-centres (Mirallié's Nos. 8, 23, 24, and 48); whilst in six cases the lesion was pretty complete and equal in both word-centres (Mirallié's Nos. 5, 16, 26, and 29, and my own two cases).

Looked at from another point of view—that is, as to the kind of speech defect presented by these fifteen cases—I find that speech was more or less good in two (Amidon's Nos. 1 and 2); that there was more or less marked paraphasia or actual jargon speech in seven (Amidon's Nos. 5, 16, 23, 29, 38, and 48, and West's case); and more or less complete speechlessness in six (Amidon's No. 4, Mirallié's Nos. 8, 24, and 26, and my own two cases). These very different results may at first seem very astonishing to others, as they did to me. But the more one thinks of cases presenting this double lesion, in which speech was only slightly paraphasic or fairly good, the more it seems necessary to suppose that the auditory word-centre of the right hemisphere must have been able to act upon and with the left glosso-kinæsthetic centre. These cases cannot be explained by supposing that speech was produced by the right auditory word-centre acting with the right glosso-kinæsthetic centre, because all present knowledge goes to show that this could only be brought about after a long interval, during which these centres were educated to act together. In the cases in question, on the other hand, there was evidently no such interval, seeing that the modified speech was initiated in each case just after the brain lesion occurred. It is worthy of note also that in the two cases in which speech was best preserved (Amidon's Nos. 1 and 2) the visual word-centre was only partially damaged, so that some help may also have come from its coöperation.

A few cases may now be given in illustration of the different degrees of speech defect associated with this double lesion with which we are now concerned. The first is one that was published nearly twenty years ago by Broadbent in which there was well-marked jargon-speech.[27] It is given here only in abstract, and is No. 5 of Mirallié's list.

CASE 40.—A man, aged sixty years, previously very intelligent and able to read and write well, but of intemperate habits, had had some sort of fit two weeks before admission to St. Mary's Hospital. From that time he had kept his bed and had been unable to speak intelligibly. When seen there was no hemiplegia, but slight paresis of the right side of the face and some amount of right hemianæsthesia. His speech was an inarticulate jargon and preserved the same character throughout. When questions were asked he attempted to reply, but as a rule nothing resembling a word could be detected in what he said. The voice was inflected and he appeared quite unconscious that his speech was mere gibberish. He seemed to have some idea in his mind and to think that he was giving expression to it. Besides speaking after questions, he would go on talking, addressing himself to one or another of those present, the whole of what he said being an incomprehensible ramble, though at times a distinct word or phrase would slip out. When excited the phrase, "If you please," was several times heard distinctly. He seemed to understand nothing that was said to him, and when told to shut his eyes or give his hand there was never any attempt at compliance. He was similarly quite unable to read writing. [Nothing is said about his ability to read print or his capability of writing, but he was probably incapable of doing either.] He would sit up in bed and appear to watch with interest what was going on in the ward. When the meals were brought in he looked for his portion, and ate his food

[24] One result of this supposition is that in endeavouring to account for the writing of an aphasic person with the left hand he assumes that the right hand and arm centres are stimulated from the one and only visual word-centre, the left—in fact that the left hand and arm are in part under the direction of the left hemisphere for writing movements, while for all other kinds of movements of the left hand and arm the right visual word-centre would, as usual, coöperate with the kinæsthetic centres of the same side. I must confess that this does not seem to me to be very probable.

[25] Brit. Med. Jour., vol. i., 1896, p. 1242.

[26] These are Nos. 5 and 31 of Mirallié's list.

[27] Transactions of the Royal Medical and Chirurgical Society, 1878, p. 147.

naturally. When the bowels were about to act he called the attention of the nurse by knocking on his locker and then pointing to the commode. There was never anything extraordinary in his behaviour. He died about three weeks after his admission to the hospital. At the necropsy softening of the posterior part of the left hemisphere was found in the region supplied by the third and fourth branches of the Sylvian artery. The convolutions softened were the supra-marginal lobule and the angular gyrus throughout their whole extent, and also the posterior half of the first temporo-sphenoidal gyrus, together with some portions of adjacent occipital and posterior parietal convolutions. Broca's region and the anterior half of the brain as a whole were unaffected.

This is a fairly typical case, the destruction of both the word-centres being complete and speech reduced to an unintelligible jargon. In the next case (No. 29 of Mirallié's list) the lesion was equally complete, though the derangement of speech was less marked—a very bad form of paraphasia being present rather than jargon-aphasia. It has been described at length by Déjerine,[28] but I give it here only in abstract.

CASE 41.—A man, aged sixty-three years, was admitted to the Bicêtre on July 3rd, 1890, having had an apoplectic seizure on the previous evening. The patient was of vigorous appearance and intelligent face, and was said to have been able to read and write previously to his illness. When examined on July 4th he was found to be in a semi-comatose condition, from which he could only be roused momentarily with difficulty. He remained in this condition for four days, and then gradually recovered consciousness. On July 20th he walked about the ward and showed no appreciable hemiplegia. He began to speak two or three days before, but his speech was much altered and he understood nothing of what was said to him. On saying to him, "Comment vous appelez-vous?" he replied, "Je suis et, surtout c'est-à-dire, c'est-à-dire, non, je ne peux pas po pa." "Quel métier faisiez-vous?" "Mon père se nommait, non, peux pas." The only words that he pronounced in a suitable manner were "bonjour" when one approached his bed, and "merci" when one gave him something to eat or drink. When a newspaper or some manuscript was shown to him he looked at the paper and then at the person who had given it to him, and it was evident that they had no meaning for him. When a pen was given him he held it correctly as if he were going to write, but made only meaningless marks on the paper, either when he was left to himself or when a phrase was dictated to him in a loud voice. If one gave him a phrase in manuscript to copy he copied the letters one after the other, but very badly and the words were illegible. Nevertheless, the general form of the letters was preserved, while in his spontaneous writing or that from dictation he was incapable of tracing even the rough outline of a letter. The patient recognised, however, quite well all the objects and persons around him. His hearing was also intact, and the slightest sound behind him would cause him to turn his head. On Dec. 4th, 1890, the word-deafness remained about the same, but he could now recognise one question, "Comment vous appelez-vous?" and gave his surname correctly. But to any question that anyone put to him immediately afterwards he still answered by giving his name. If after an interval one came back to him again he no longer replied as before with his name to all questions, but by words or phrases that had no relation to the question. For example: "D.: Qu'avez-vous fait hier? R.: Mon père était marchand de vins.—D.: Dans quel hôpital êtes-vous? R.: Je ... vou ... je voudrai ... non ... papapa ... tou.—D.: Quel age avez-vous? R.: J'avais cent soixante-trois.—D.: Quel métier faisiez-vous? R.: Trois ans, six six ans, trente trois, jamais trente un ans jamais, trente, trente, trente, trente-trois ans, jamais trente, trente, trente-trois ans." The patient was still unable to read, but for the last few days he had recognised his name and been able to pronounce it aloud, though he could do this with no other word. Right lateral hemianopsia seemed to be present. The agraphia remained complete as before. The patient remained in about the same condition for another three weeks; then his whole condition changed, he gradually sank into a semi-comatose state (owing to the establishment of a large area of softening in the right hemisphere), and about a month later he died. At the necropsy, in addition to a large area of recent softening in the right hemisphere, there was found a large area of yellow softening completely destroying the visual and the auditory word-centres of the left hemisphere, which also extended forwards into the parietal region and backwards into the occipital. Section of the hemisphere also showed that the lesion extended inwards through the white substance as far as the posterior cornu of the lateral ventricle.

It is worthy of note that there was here no speech at all for sixteen days from the onset of the seizure and for about eight days after the recovery of consciousness; and, looking to the completeness of the destruction of the left auditory and visual word-centres, it is difficult to suppose that the speech which was subsequently possible could have been effected without the aid of the right auditory word-centre. Much the same thing may be said in reference to the next case, although the speech trouble was more like that met with in incomplete motor aphasia. It is No. 8 of Mirallié's list, and has been recorded by d'Heilly and Chantemesse.[29] The following is a brief abstract.

CASE 42.—A woman, aged twenty-four years, became suddenly speechless on Oct. 12th, 1881. She entered a hospital at once. To all questions put to her she would repeat five or six times with different intonations. "Because, because, because." Sensibility and motility seemed perfectly intact. On Oct. 15th, in reply to a question, she answered, "Thank you, sir, I am better"; though, as Bernard points out, she was never able to repeat it. She looked very intently at the speaker, but words seemed to wake in her no image, no remembrance. When told to put her hand to her head she hesitated an instant and appeared to be trying to remember something, but she remained motionless. When the command was accompanied by a suggestive gesture she quickly obeyed. Hearing and vision were both preserved. Her power of calculation seemed preserved, as she could play écarté skilfully, making no errors as to colour or value. When asked, she called her knife, tumbler, food, wine, and plate each "du pian." When an orange was held out to her she answered all questions, "Yes, sir," and reached for the orange. Once when her soles were tickled she said, "Please don't, sir." She could neither copy, write from dictation, nor read. She died on Nov. 3rd from marasmus. There was found at the necropsy a softening from thrombosis of the fourth branch of the left Sylvian artery. This softening involved the upper posterior half of the first temporal convolution, most of the inferior parietal lobule, the supra-marginal gyrus, and some of the sigmoid gyrus. The softening affected only the cortex, and on section was seen to implicate only the extreme posterior hidden part of the insula.

It seems clear from the records of the necropsy that the left auditory word-centre was here only partially destroyed, so that perhaps we need not suppose that help came from the right auditory word-centre for the production of the few short sentences that this patient was capable of uttering.

In a patient recently under my own care, suffering from a softening of the same region of the brain, during the three weeks that elapsed before death occurred there was absolutely no speech. The following are a few notes concerning this case.

CASE 43.—A woman, aged fifty three years, was admitted to University College Hospital on April 28th, 1896. Whilst suffering from inflamed varicose veins in the left leg she began to feel ill on April 22nd, suffering from headache and irritability. On the morning of April 26th these thrombosed veins were rubbed with an embrocation. She went to bed on the night of the 26th with no change in her symptoms, but the next morning she fell from the bed in an unconscious condition. She twitched her left arm and muttered indistinctly for a time, and remained in a stuporous state up to the time of admission (9 A.M. on the 28th). She was found to be semi-conscious and paralysed on the right side, showing some irritability on examination, throwing her left arm and leg about, and occasionally uttering some inarticulate sounds. There was no cardiac bruit; the respirations were natural. Her temperature was 100·8° F. She remained in much the same condition, semi-conscious, yawning frequently, rather restless at times, till May 5th, when she became more conscious, but made no attempt to speak or even utter any sound. She could not be induced to protrude her tongue. She did not attempt to respond or show that she understood any simple request, and appeared to be perfectly word-deaf. She took no notice of written sentences held before her. The right arm was rather rigid. On May 11th she seemed more conscious than she had been but did not speak, nor did she seem to understand anything. One fourth of albumin was found in the urine. On May 14th she began to suffer from sickness and some diarrhœa (the albumin in the urine persisting), together with lung complications, and she died about midnight on May 18th. At the necropsy the third frontal and the lower part of the ascending frontal convolution were found to be healthy, both externally and on section; but the lower part of the ascending parietal, together with the whole of the supra-marginal and angular gyri and the two upper temporal convolutions, were completely softened throughout. The softening extended to, and partly involved, the outer part of the thalamus and the corpus striatum; it also extended backwards slightly into the occipital lobe. The right hemisphere showed no focal lesion of any kind.

Here, then, there was complete loss of speech as a result of destruction of the auditory and the visual word-centres in the left hemisphere, together with some adjacent tracts of brain tissue, which lasted continuously for just over three weeks. We have seen that Déjerine's patient (Case 41) also remained speechless for sixteen days after the onset of his seizure, and then began to talk in a badly paraphasic fashion. It seem probable, therefore, that my patient might also have developed some sort of power of speaking had she lived longer.

My second case belonging to this group is one of a very extraordinary nature in many respects, the patient having lived over eighteen years after his seizure, and his speech defects having remained constant throughout almost the whole of this period. His spontaneous speech was limited to a few words, and, though he was neither word-deaf nor word-blind, both the auditory and the visual word-centres of the left hemisphere were completely destroyed. The record of this remarkable case, together with illustrations of the brain, will be published in the forthcoming volume of the Transactions of the Royal Medical and Chirurgical Society for 1897.

Time does not permit of my referring either to "object-blindness" or so-called "optic aphasia"—interesting conditions, one or other of which may sometimes be met with in association with such cases as we have just been considering, where lesions producing speech defects extend into the occipital lobes. These conditions, together with other parts of the subject, I shall hope to deal with before long in some other way.

My object in these lectures—after laying down some general principles needful, as I consider, for the proper understanding of speech defects, and culminating in my non-recognition of any distinct and separate "centre for concepts," such as

[28] Comptes Rendus de la Société de Biologie, 1891, p. 167.
[29] Bulletin de la Société Anatomique, 1882, pp. 324-338.

many postulate—has been to limit myself to a definite set of problems concerning the functional relations of the four cortical word-centres. I have striven to show that the overweening importance attached by many to the functions of Broca's centre is not justified by facts—that too many disabilities have been supposed to result from its destruction by some, and that the power of independent activity ascribed to it by others does not exist. I have tried to show the way in which these views have influenced others to deny the existence of a cheiro-kinæsthetic centre and the fallacious nature of many of the arguments on which they rely. Again, while alluding to the unsatisfactory nature of the nomenclature at present in vogue, I have tried to show that the so-called "sensory aphasia" of Wernicke has no claim, as he supposed, to an independent existence, but really includes a large number of distinct conditions, each of which has to be studied separately and in detail. The great importance of the auditory word-centre has been dwelt upon, as well as the variety of defects produced by functional and structural derangements of this region, and also by its isolation. A study of these results, taken in conjunction with that of the less varied defects resulting from disease and from isolation of the visual word-centre, led to some novel conclusions. We have seen the enforcement of the view to which we had previously been driven as to the comparative powerlessness of Broca's centre alone; we have found evidence for the existence of an unexpected possible amount of functional substitution between the visual and the auditory word-centres for the production of speech and writing respectively; and, still more surprising, we have found reason for believing that both auditory word-centres are accustomed to act upon Broca's region for the production of speech—as well as much evidence tending to favour the view that even in comparatively simple perceptional and intellectual operations very extensive cortical areas in both hemispheres of the brain are called into simultaneous activity.

I can only say, in conclusion, that my best thanks are due and are given to the College for the opportunity that has been afforded me of submitting the results of my labours to its consideration, and to you all for the patient manner in which you have listened to minute details which, I fear, must have been often wearisome and somewhat difficult to follow.

THE MALIGNANT TUMOURS OF INFANCY, CHILDHOOD, AND YOUTH.

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DURING the last half century vast additions have been made to our knowledge of the malignant neoplasms of early life. Unfortunately, most of these precious acquisitions are still buried in the archives of learned societies, where they are beyond the ken of practitioners. In this country not a single endeavour has hitherto been made to make known to the profession the general results thus attained; and in the standard text-books—even in those that deal specially with the diseases of children—little or nothing is to be found on the subject. Hence these diseases are frequently overlooked, and the real nature of the malady is often never even suspected. I was particularly struck with this deficiency; when, desiring to compare my own experience of this particular class of tumours with that of others, I found to my surprise, that no standard of comparison existed, for my predecessors had recorded nothing but isolated cases and small groups of such cases. Under these circumstances I determined to supply the deficiency by collecting cases and reviewing the chief publications in the light of my own experience. Of this undertaking the present article is the outcome. The subject having proved much larger than I at first anticipated, I have endeavoured to make my review representative rather than exhaustive.

Notwithstanding the large number of instances of malignant disease in early life lately recorded, it will be gathered from the subjoined data that fewer cases originate during infancy and childhood than at any other periods of life. Of 941 consecutive malignant neoplasms under my own observation only 25—i.e., 2·6 per cent.—commenced under the age of twenty years; of these, 8 started in the first quinquenniad, 2 in the second, 6 in the third, and 8 in the fourth. This subject is further illustrated by the following table from the Registrar-General's Report for 1886, which shows a lower proportion of cases at early periods—viz., 1·15 per cent. under twenty years of age:—

TABLE I.—*Showing the Deaths due to Malignant Disease at Different Age Periods.*

Sex.	All ages	Under 1 year	1-2	2-3	3-4	4-5	Total under 5 years.	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65-75	75-85	Over 85	Total both sexes.
Males	5754	8	6	6	6	5	31	18	18	33	50	145	426	1095	1727	1555	591	65	16243
Females ...	10489	7	6	6	6	6	31	15	16	25	41	321	1313	2464	2922	2330	910	101	

It is sad to have to relate that during the last decennium the mortality due to malignant disease in early life, for the first time, showed a decided increase, although the increment of increase is proportionally much less than at subsequent age periods. This is illustrated by the following table from the Registrar-General's recently issued decennial supplement.

TABLE II.—*Showing the Number of Deaths from Malignant Disease in Early Life per Million Persons Living at each Age Period.*

Age periods.	Under 5.	5-10	10-15	15-20	20-25	All ages.
1861-70	13	7	7	7	17	384
1871-80	12	7	7	15	27	468
1881-90	20	10	11	20	35	589

It will be gathered from Table I. that the relative sex liability to malignant disease in early life shows no such marked differences as are noticeable at more advanced ages.

I have been greatly impressed, as I shall subsequently have occasion to point out, with the large proportion of the neoplasms of early life that obviously arise in connexion with embryonic developmental aberrations. This gives to the whole group a certain peculiarity, but it seems to me undesirable on this account to make a special morbid entity of these neoplasms, as Birch-Hirschfeld and others have proposed. I have found that the proportion of cases in which a history of heredity is recorded is considerably smaller than in the corresponding neoplasms of adult life, consequently I cannot corroborate Hutchinson's dictum that "malignant disease in young persons is generally inherited." The newly-born infants of mothers themselves the subjects of malignant disease are hardly ever thus affected.

Nearly all the malignant tumours of early life are of a sarcomatous nature; true cancers—i.e., malignant epithelial neoplasms—are at this period exceedingly rare.

Of my 941 neoplasms 806 were cancerous and 135 sarcomatous; in only one of the former did the disease begin under twenty years of age, whereas the latter furnished 24 cases.

With regard to the localisation of the disease, this depends largely upon the age at onset. Duzan[1] collected the records of 182 cases in early infancy, which were distributed as follows: Eye in 70 cases, kidney 45, testis 11, prostate 8, bones 5, tongue 5, brain 5, abdomen 5, lung 4, dura mater 4, pancreas 3, liver 2, tonsil 2, rectum 2, and the stomach in 1. During the third and fourth quinquenniads certain of the long bones, together with the superior

[1] For bibliography see end of article.

and inferior maxillæ, are the commonest seats of the disease.

An analysis of my 55 consecutive cases shows that 13 originated in the first quinquenniad, viz.—in the eye 7, kidney 2, testis, inferior maxilla, basis cranii, and tibia, of each 1; in the second quinquenniad 6 originated, viz.—liver, parotid, kidney, tibia, cervical lymph gland, and inferior turbinated bone, of each 1; the third quinquenniad furnished 16 cases, viz.—inferior maxilla 4, femur 3, fibula 2, tibia, humerus, acromion, parotid, thigh muscles, external ear, and retina, of each 1; in the fourth quinquenniad 20 cases arose, viz.—in the femur 4, superior maxilla 3, inferior maxilla 3, lymph glands 2, testis, pharynx, kidney, parotid, basis cranii, humerus, orbit, and subcutaneous connective tissue of back, of each 1.

The great majority of the neoplasms of early life either are malignant or tend to become so; such tumours progress more rapidly, disseminate more frequently, and after removal recur with greater rapidity, than their congeners of adult life. A large proportion of these malignant neoplasms are undoubtedly congenital; that is to say, they originate during intra-uterine life. Moreover, they are often multiple *ab initio*, and not unfrequently bilateral. As I shall subsequently have occasion to mention, all tumours of this kind probably are sarcomatous; but many alleged examples of congenital "cancer" have been recorded. It must be remembered, however, that the sharp distinction now made between cancer and sarcoma is of comparatively recent origin. Many of the malignant tumours of infancy and childhood contain epithelial elements, and this has often led to their being christened "cancer." Numerous examples of this kind have been recorded, especially in connexion with the renal, testicular, ovarian, hepatic, gastric, and intestinal malignant neoplasms of early life. It is now generally recognised that the epithelial elements in such cases play only a secondary part, and that all such neoplasms really are sarcomatous.

In other instances of alleged "cancer" in early life the diagnosis has been based exclusively on the microscopical appearances, the clinical features of malignancy being conspicuous by their absence. Instances of this kind have been published in connexion with the lips, skin, external genitalia, &c. In short, I conclude that infancy and childhood are completely exempt from true cancer, using this term in the sense of malignant epithelial neoplasm. The earliest age at which cancer has been satisfactorily demonstrated is eleven years, the patient being a girl with cylinder-celled cancer of the rectum (Stern).

I have met with the following instance of rodent ulcer in a young woman in whom the disease began at the age of fourteen years.

CASE 1.—At the early age of fourteen years the patient noticed "a small pimple" of the skin of the left temple. No wart, mole, or obvious congenital blemish was previously there. In the course of a few years the "pimple" became a small, scab-covered sore. It took eight years for this sore to attain the size of a sixpence and five years more for it to attain the size of half-a-crown. It was then cauterised, after which it spread more rapidly, involving the left side of the head from the orbit to the ear. It next involved the ear and eyelids, the left sub-maxillary glands at this stage becoming slightly enlarged. Her general health remained unaffected. The ulcer was next scraped, and its peripheral parts extirpated by dissection. Rapid recurrence followed and was destroyed by Fell's paste. Two and a half years later the ulcer was much larger and more like epithelioma, with several adjacent lymph glands enlarged and hard. The disease was again freely extirpated. Three years later it was still progressing, and the orbit was invaded. No further operation was performed. The disease spread in the orbit and perforated its roof, so that the brain protruded through a large chasm. About a year later she died thus from asthenia, the total duration of the disease having been nearly twenty-two years. At the necropsy it was found that the ulceration had ravaged the whole of the left side of the head and face, from the hairy scalp to the lower border of the inferior maxilla, and from the ear to the nose. The left superior maxilla had disappeared, and the pharynx was laid open. The left orbit was eaten away, and the brain projected through its roof. There were no signs of dissemination, either in the adjacent lymph glands or elsewhere. Histologically the disease was typical "rodent ulcer."

With these introductory remarks I will now proceed to the consideration of individual cases, as they are met with in the various organs.

UTERUS.

In early life the uterus and breast are hardly ever attacked by malignant neoplasms. This immunity, which contrasts so markedly with their subsequent proclivity to these diseases, is probably due to their rudimentary condition at birth and during infancy, for it must be remembered that the essential features of their anatomy are almost entirely of post-embryonic origin. No example of congenital malignant disease of the uterus has hitherto been recorded. Under the age of twenty years uterine cancer is hardly ever met with. Of 500 consecutive cases analysed by me the earliest age at onset was twenty-two and a quarter years. Gusserow,[2] by massing the statistics of several Continental and English writers, obtained a total of 3385 cases, and of this large number only two originated under twenty years of age. The earliest age at which the outbreak of the disease has been duly substantiated is seventeen years; Schauta[3] and Glatter[4] have each recorded an instance of this kind, the cervix being the seat of the disease, which was glandular cancer. Mundé[5] has reported a case at eighteen years of age; while Beigel, Tchop, and Eckardt[6] have each met with one at nineteen years of age; the cancerous nature of the affection—"hypertrophy of the cervix with commencing cancer"—in the last case is, I think, dubious. Billroth has seen the disease at twenty years of age. Several instances of so-called cancer of the uterus at still earlier periods have been recorded; but the precise nature of these neoplasms presents some obscurity. Cases of this kind have been published by Rosenstein at two years, Laidley at two and a half years, Ganghofner at seven years, and by Barnes at nine and ten years respectively.

CASE 2.—Rosenstein's[7] patient, aged two years, came under treatment for dysuria caused by an intra-abdominal tumour, which reached far above the pubes. The inguinal glands were enlarged. She died shortly afterwards. At the necropsy a large mass of new growth was found springing from each side of the fundus uteri. There were several nodules of similar growth on the peritoneal surface of the bladder. The mucosa of the uterus, tubes, and vagina was unaffected, and the ovaries were normal. Histologically the tumour consisted of a fine, spindle-celled stroma, the meshes of which contained large polymorphic epithelioid cells. It is described by Rosenstein as "carcino-sarcoma." This anomalous neoplasm appears to me to approximate more closely to malignant angio-sarcoma than to any other well-recognised type.

CASE 3.—In Ganghofner's case[8] a little girl, nine years old, had an eroded papillary tumour growing from the portio to the vaginal aspect of which it was attached by a distinct peduncle. The symptoms were of two years' duration. The growth was excised, but the patient died from small-pox a few days afterwards. The vagina and adjacent parts were found to be quite free from the disease, and there were no signs of dissemination either in the neighbouring lymph glands or elsewhere. Histological examination revealed the presence of hyperplastic glandular structures beneath the enlarged papillæ. They were evidently derivatives of the cervical glands, and for the most part their lumina were preserved, although the lining cells were often multilaminated. These appearances were thought to warrant the diagnosis of glandular cancer. It seems to me more like a case of non-malignant "cauliflower excrescence," of which several instances have been met with in infancy; this accords with the complete absence of dissemination, although the disease was of two years' duration. The hyperplastic glandular elements were probably of inflammatory origin.

Braetz has described an instance of endothelioma of the cervix at eighteen years of age.

Although in early life sarcomatous neoplasms of the uterus are exceedingly rare, yet they are relatively much oftener met with than cancers. Of seventy-three uterine sarcomata tabulated by Gusserow[9] four began under twenty years of age. Neoplasms of this kind generally present as polypoid tumours springing from the mucosa, and they are usually multiple. In this and in other respects they much resemble the analogous growths so often met with in the vagina of children; and both organs are occasionally thus affected, as well as the urethra and bladder. Cases of this kind have been reported by Holländer[10] in a child seven months old, by Farnsworth[11] at thirteen months, by Pick[12] at two years, by Smith[13] at three years, and by Ahlfeld[14] at three years and four months. Hereford[15] and Clay[16] have related several similar cases. Zweifel[17] has reported a case at thirteen years, and Ahlfeld[18] one at fifteen years. It is evident that these neoplasms are closely allied to the rhabdomyomatous racemose sarcomata of the portio, such as Pernice, Thiede, Rein, and others have described.

VAGINA.

The chief feature in the neoplastic pathogeny of the vagina in early life is the great relative frequency with which multiple polypoid sarcomata arise from its mucosa. In addition to their initial multiplicity these tumours present other special features; they are not unfrequently congenital, and a considerable proportion of them contain striped muscle fibres. These indications point to their origin from developmental irregularities. It will be remembered that the vagina is formed by the coalescence of two pairs of tubes at first widely separated; it is exceedingly probable that during the process of approximation and fusion fragments of muscle matrix, detached from adjacent parts, become included in the developing organ. Most of these peculiar sarcomatous tumours probably originate from dislocated cells connected with aberrant sequestrations of this kind. They have been met with at birth by Gränicher,[19] Chiari,[20] Frick, Schubert, Demme, and others. An excellent specimen of this kind is preserved in the museum of St. Bartholomew's Hospital,

which is thus described in the catalogue:[21] "A large cluster of polypoid growths removed from the walls of the vagina and from the nymphæ of a child. They were of various sizes and shapes; the largest, about three inches in diameter, was attached to the upper wall of the vagina. They were soft and whitish, some being gelatinoid and pellucid. Histological examination revealed fibro-cellular connective tissue."

CASE 4.—The history of the case was as follows:—At birth a growth "like a bunch of grapes" was observed projecting from the vagina, to the right wall of which it appeared to be attached. It was ligatured and cut off when the child was six weeks old. There was recurrence, but no further operation was done until the child was three years old, when the mass was again ligatured and cut off. This time recurrence was very rapid, for the above described growths were removed only six weeks after the second operation. It was then recognised that the whole of the disease could not be removed, especially in the vicinity of the urethra. Rapid recurrence soon set in, and the child died thus from asthenia three months later.

Growths of this kind are commonest in early infancy. Hauser[22] has met with an instance in a child six weeks old, Frick[23] at seven months, Schuchardt[24] and Kolisko[25] at one year; at rather more advanced ages cases have been reported by Körner,[26] Marsh,[27] D'Arcy Power,[28] Sänger,[29] Soltmann,[30] Pick, Münz, Ahlfeld, and others. Demme has seen a case at seven years, and Kaschewarowa-Ruduewa[31] one at fifteen years; but most cases are met with in children under five years. Growths of this kind may be limited to the vulva, as in cases reported by Thomas[32] and Volkmann. Cancer of the vagina is a very rare disease, even in advanced life, consequently it is surprising to find that of 24 cases tabulated by Kuestner[33] 2 started in young persons under twenty years. Lebert[34] and Guersant[35] have each recorded an example of epithelioma of the introitus in a child only three and a half years old, and Johannovsky[36] has reported a similar case at nine years. Probably these latter cases would be more correctly classed as sarcomata of the type described by Gow.[37]

BREAST.

In early life malignant disease of the breast is even of rarer occurrence than of the uterus. Of 1622 mammary cancers tabulated by Gross[38] the earliest age at onset was twenty-one years. Of 500 consecutive cases analysed by myself the youngest was twenty-four years of age. Haycock[39] has reported a case at twenty-one and a half years, and Erichsen[40] one at twenty-three years. Thus the first four quinquenniads are quite exempt from mammary cancer. Alleged examples of it by Lyford (at eight years), Carmichael (at twelve years), Cooper (at thirteen years), and Home (at fifteen years) were never histologically verified; we may safely assume that the disease in these cases really was sarcomatous. Of 156 cases of mammary sarcoma tabulated by Gross,[40] in 2·7 per cent. the disease supervened before the sixteenth year, the earliest being nine years old. Chambert has met with a round-celled sarcoma, the size of a fowl's egg, in the right mamma of a girl only four months old, and Vieregge with melanotic sarcoma in a young infant. A larger proportion of spindle-celled sarcomata than of other varieties arise during early life, for 12 per cent. of this variety began under sixteen years. In a small round-celled sarcomatous tumour of nine months' growth removed from the breast of a girl aged sixteen years, Billroth[41] found numerous transversely striped muscle cells. A congenital myxoma has been figured by Ashby and Wright.[42] Of 88 cases of cancer of the male breast collected by me, the earliest age at onset was twenty years; Banks[43] has seen a young man with sarcoma of the breast in whom the disease began at twenty years and four months.

OVARY.

A large proportion of the malignant neoplasms of the ovary, which are rare, occur in infants and young children. Of 12 cases in which tumours of this kind were extirpated Aldibert[44] reports that 6 were children between the ages of seven and nine years, and 1 was only four years old. These neoplasms are almost invariably sarcomatous, and both ovaries are often affected. Cases have been recorded by Brown[45] at nine months, Cameron[46] at three and a half years, Marchand[47] at four years, at six years,[48] Croom[49] at seven years, Leopold[50] at eight years, Malins[51] at nine years, Wagner[52] at ten years, Kelly[53] at twelve years, Wagner[54] at thirteen years, Smith[55] at fourteen years, and by Szabo[56] at fifteen years. Doran[57] has found papillomatous cysts in the ovary of a seven months' fœtus. Ovarian dermoid cysts have often been met with at birth, in infancy, and in childhood; but I am not aware that at such early ages malignant disease has been observed in connexion with them. Doran[58] has, however, seen an instance of this at seventeen years and Hauke[59] at fifteen years.

Several examples of alleged cancer of the ovaries in infancy and childhood have been published; but so little that is reliable is known of ovarian cancer that I hesitate to accept them as such. Mengershausen,[60] Leopold,[61] Gussenbauer[62] (at eight years), Kahlden,[63] and Hennig[64] have recorded cases of this kind. What appears to be a duly authenticated example of cancer of the ovary at fifteen years of age has been reported by Doran.[65] It is noteworthy that these ovarian neoplasms, unlike their congeners of the testis, hardly ever contain heterotopic structures such as cartilage and striped muscle—at least, I know of no recent instance in which their presence has been demonstrated.

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(To be continued.)

THE NOTIFICATION OF TUBERCULOSIS.[1]

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THE following paper is in no sense intended to be scientific or abstruse, and I would therefore ask for some indulgence if my observations are somewhat brief and desultory.

It is requisite, however, that I should state some fundamental facts about the propagation of phthisis as a basis of action. First, then, we know more about the modes of propagation of tubercle than we do about those of any other of the infectious diseases with which we are familiar. This is sufficiently clear if we consider the facts. As a result of Koch's investigations we are aware that the tubercle bacillus is the invariable antecedent of tuberculous changes and that it is the cause of most diverse conditions, including tuberculous phthisis, tuberculous enteritis, tuberculous ulcers whether of the mouth or glands, tuberculous diseases of

[1] A paper read before the Manchester Medical Society on April 7th, 1897.

bones and joints, tabes mesenterica, tuberculous meningitis, and other conditions which I need not now enumerate. Whatever discharging lesion tuberculosis sets up the discharge contains the bacillus in greater or less abundance. It is, however, specially abundant in tuberculous sputum and in the discharges from tuberculous bowels. It is also often abundant in the milk drawn from tuberculous udders. From many experiments we are aware that if tuberculous matter is inhaled, ingested, or inoculated in animals in sufficient amount it is liable to produce the disease. We have good reason for believing that only when the discharges of tuberculous persons or animals have got dried and broken into dust are they able to produce the disease by inhalation. We have also evidence that such tuberculous dust is to be found in an active condition in the neighbourhood of phthisical persons when sufficient precautions have not been observed in the removal of infection. The tubercle bacillus is able to grow outside the body at ordinary temperatures, but only extremely slowly and under exceptionally favourable conditions. It is not probable that this factor enters largely into infection. Our chief object, then, in the prophylaxis of tuberculous diseases must be to prevent any part of the discharges from getting dried or otherwise reaching the internal organs of new persons. But it is also necessary as a subsidiary means of defence, especially in lodgings, to see that the rooms occupied by those suffering from the disease are kept thoroughly cleansed in such a manner as to prevent the dispersion of any infective matter which may have lodged and dried in them. We are further aware that the tubercle bacillus is readily destroyed by direct sunlight, and less readily by good indirect light. Inasmuch, again, as a certain concentration of infection is necessary to produce the disease, differing greatly according to the state of health of the infectee, good ventilation will clearly have the effect of diluting the infected matter and so of diminishing its capacity for mischief. Above all, thorough cleansing with water removes the bacillus, and washing with dilute solution of chlorinated lime destroys it.

No one now disputes that tuberculosis is a communicable disease or that it is communicated. The knowledge, however, is not generally a vivifying knowledge, leading to action. For this the chief reason is that the source of infection is often forgotten—often, indeed, overlooked. Take the case of a girl whom I examined as to suitability for the convalescent home in Southport. She was phthisical, and I put the usual question whether some years before she had not been a good deal with some phthisical person. She could not recollect anything, but just as she was leaving she remembered that about three years before she had nursed for several weeks a cousin who was dying from phthisis. Precisely the same experience happened the other day to a medical man in a case into which he was inquiring, only that the facts were not remembered till a second visit was paid. There is, however, no difficulty for anyone who has previously studied the avenues of infection in making out many histories of exposure to infection. Indeed, I was able, after a second inquiry into deaths from tuberculosis in 1890, to show that a clear history of infection could be discovered in the majority of cases investigated, and to formulate the proposition that healthy persons, many of whom take phthisis, do not contract the disease except after prolonged and demonstrable exposure to infection. There are plenty of instances recorded in which infection has been probably traced from one person to another by inhalation and by direct inoculation, and which may be found scattered over the literature of tubercle. Thus, instances of infection by inhalation are given in Dr. G. A. Heron's book on the Communicability of Consumption; of inoculation of tubercle in Dr. Heron's book and in Dr. Senn's work on Surgical Tuberculosis; of inoculation in veterinary surgeons from cattle in Dr. Heron's book and in Arloing's "Leçons sur la Tuberculose"; and of infection of children by ingestion in Professor Delépine's paper on Tuberculous Infection through the Alimentary Canal. The evidence of infection in cattle and pigs is overwhelming, nor is it less so where sound people have been crowded together with the tuberculous under unfavourable circumstances. I venture to say that any intelligent man who may choose to put the necessary trouble into the work will be able to show a similar history of infection in any consecutive series of reasonably intelligent patients whose histories he may choose to investigate. It is true that this particular inquiry will give some trouble, and one needs, especially at first, to have a distinct faith that the facts will be revealed to the inquirer. To myself, personally, this knowledge came only after the partial failure of one investigation in 1886. But even on the first occasion the true relation of the facts had begun to show itself.

Now, we can show no such record of clearly traced sources of infection in respect of our ordinary infectious diseases such as typhoid fever, scarlet fever, and diphtheria, at all events in a large town. In the great bulk of instances no clear exposure to infection is made out. The reason of this is partly that many cases of these diseases are overlooked altogether, and partly that the avenues of infection are not clearly worked out. The bacillus of typhoid fever grows outside the body, and we do not know with sufficient precision where or under what conditions. We are not thus hampered in respect to tuberculosis. But we are hampered by the long periods of time which have often elapsed since infection occurred. In making such an investigation, therefore, we have first to ascertain when the disease definitely showed itself. We may then, in the case of phthisis in an adult, go back from one to two years for the source of infection. But the latent period is a very variable one. First, we ascertain whether any member of the same family with whom the person under investigation came much in contact was phthisical at such a period as was compatible with infection, or whether any intimate associate was affected. Failing in this we consider the occupation of the person, what materials he worked in, the nature of his work, and the possibility of infection among his co-workers. If he was working previously side by side with a sufferer from the disease, what were the conditions of the workroom? Were they such as to lead to the preservation, concentration, or dispersion of infective matter? It is necessary also to ascertain whether the phthisical person was originally of weak physique or had been weakened by any special cause. Had he sustained any injury? Under such circumstances a comparatively slight amount of infective matter may have been sufficient to produce tuberculosis. By these and kindred inquiries the facts will generally be elicited. The success of such an inquiry is ensured by the circumstance that tuberculosis is not an easily acquired disease by a healthy person, and that is why the etiological inquiry is so much more successful for tuberculosis than for other diseases, when pursued with ardour and persistence. The value of such etiological inquiries does not lie in the fact that they add to the proof that tuberculosis is a disease communicable and communicated—the experimental proof of this is such as to defy cavil; but the clear demonstration of the relation between the infector and infectee carries with it a conviction to most minds out of all proportion to its scientific value. Moreover, in this way we obtain a clear conception of the circumstances as regards personal condition, personal habit, circumstances of the dwelling, circumstances of work, and so forth, which determine the occurrence of infection, that we can get in no other way. The facts fall into their natural groupings. After such an investigation we are not disposed either to overrate or to underrate the influences of such factors as overcrowding, defective ventilation, adverse occupations, previous disease, and so on, and it can be seen that the one ever-present factor is a sufficient amount of exposure to infection, the amount differing according to the state of the individual, although, in preventing the disease from being communicated, other factors have, no doubt, to be taken into account. Nor is such an inquiry without individual results of importance. In my first inquiry in 1886 I was able to say that the most common period between infection and death was between two and three years—a period confirmed by Cornet's inquiry into the mortality of the Catholic nursing institutions. These inquiries also brought out the influence of alcoholism.

The record of Manchester work is already an excellent one in regard to the investigation of tuberculosis. For something like twelve years Dr. Arthur Ransome has advocated the instruction of tuberculous subjects in the methods of prevention, and no doubt a decided effect has been gradually produced on the public mind by the distribution of the leaflets of the Manchester and Salford Sanitary Association. A movement was also started by Dr. Ransome to disinfect the rooms occupied by tuberculous subjects, and also those in which such persons had died. This was, however, never prosecuted on any great scale, probably because the methods of disinfection were felt to be, at that time, insufficient. There was never in Manchester, be it said, anything approaching the notification of phthisis properly

understood. At the same time that Dr. Ransome was pursuing this object in Manchester we were distributing information in Oldham on the means of preventing the disease. This information was sent to every house in the borough, as has since been done in Manchester. This matter of popular instruction has been taken up with considerable vigour in Lancashire, and also, of late, in other parts of the country. Doubtless these instructions have produced an impression, though of what magnitude we have no means of telling.

Our chief contributions to the scientific knowledge of the disease in Manchester have come from Professor Delépine, as I do not need to say. Let me mention one or two points. Professor Delépine's observations have greatly helped in giving certainty to the view that the bacillus of human tuberculosis may be grown in suitable media at the ordinary temperature of the atmosphere, though such growth is very slow. He has added to our knowledge of the method of inoculation as a means of diagnosing tuberculosis. In conjunction with Dr. Ransome he has shown in an adequate manner that light possesses the power of destroying tubercle bacilli, a knowledge which had previously been in part assumed. By his investigations on the action of chlorinated lime he has furnished us with a cheap and efficient means of disinfection, which at the same time, in a proper degree of dilution, is quite safe. Dr. Harris's observations at the Manchester Royal Infirmary have added precision to the facts which show that tuberculosis is often recovered from, a matter of great moment both from the point of view of prevention and as regards treatment. I may also mention Dr. Kelynack's recent observations on the connexion of the occurrence of tuberculosis of the abdomen with cirrhosis of the liver due to alcohol. Dr. Dreschfeld's experiments on the ingestion of tuberculous meat may also be mentioned, though these do not so much concern us.

Notification of phthisis.—In the light of our existing knowledge it seems to me that, whatever the difficulties may be, we ought to try notification of tuberculosis. As I have already said, the cases which would be notified are all cases with tuberculous discharges and also cases of tabes mesenterica. What, now, are the difficulties to be encountered? The first difficulty is one of expense. No doubt the expense is an important matter for the health authority to consider, but it scarcely needs to be much considered here. I may say, however, that looking to the good which I believe we are certain to achieve, the money would be better spent than in regard to any other disease. As regards actual expenditure in notification fees, the average amount would not necessarily exceed that expended on all the other infectious diseases. There are, however, special difficulties attaching to this matter of notification. The duration of a case of tuberculosis is considerable, and the medical attendant is often changed in the course of the illness. If the full fee were to be paid to every medical man consulted by a tuberculous patient the expenses would amount to a large figure. To avoid this I propose to pay the fee only once. If the case were notified a second time by another medical man a small fee would be paid to cover expenses, while an intimation would be sent to him of previous notification with all particulars. Notification would, however, be compulsory. As regards public institutions, it is necessary to remember that a certain number of the cases would not previously have been seen by a medical man. The names and addresses of the cases should, therefore, be recorded and forwarded to the health office, say, once a week. For this service a small annual sum might be paid.

What, then, might we hope to obtain from notification of cases of tuberculosis? In the first place, we should have a continuous record of the persons affected, of their addresses, and of the places where they carried on their employment, or of the school or other daily resort of the person reported. Such a continuous record would clear up many dark places in the history of the propagation of the disease, and would enable us to know precisely where to apply a greater urgency of precautions. In the second place, it is incontestable that the propagation of tuberculosis is much furthered by the adjuvant influence of certain insanitary conditions, by overcrowding, by damp, dark, and ill-ventilated dwellings, and by other influences which would come under the scope of an inquiry instituted by the health office. These conditions it would be the business of the health department to ascertain and remove. In the third place, notification would enable us to deal in an adequate manner with the personal precautions required to be taken by the patient to avoid infection. At present we have no means of knowing to what extent such personal precautions are enjoined by medical men, and I am afraid it is quite certain that they are to a large extent neglected. The proposal is that the health office should coöperate with the practitioner in getting necessary precautions carried out. A certain degree of constraint would necessarily arise in this manner. Inquiries would be made from time to time by the representatives of the health office, on forms prepared for the purpose, of the actual steps taken by the person affected to protect the members of his family and his fellow workers from infection, and an effort would be made to induce phthisical people to carry out necessary precautions, such as those relating to the interception and removal or destruction of sputum at home and in the workshop. As Cornet has abundantly shown, sufferers from tuberculosis, in the absence of such precautions, are a serious danger to their neighbours as well as to themselves, but, if the necessary precautions are carried out, they need not endanger anyone. It is, therefore, not at all necessary to deprive the phthisical of their employment, but it is, on the other hand, remarkable how long they have been allowed to endanger and endamage others. All this needs, however, to be carried out with discrimination, although I do not foresee any great difficulty, if much labour, in obtaining what is needed by the joint action of the medical attendant and of the health office. In the fourth place, as an auxiliary means of defence, it is necessary, especially where you cannot be sure that a strict personal hygiene has been carried out, to have the rooms occupied by tuberculous persons disinfected. The extent to which this is necessary cannot be gauged until, by careful and sufficient observation, it has been ascertained to what extent personal hygiene can be secured. With strict personal hygiene repeated disinfection is not needed. With less strict personal care, such as must often inevitably occur in the last months of life, it is more necessary. Disinfection should be carefully carried out after the death of a phthisical person. Especially is this the case where, as with lodgings, the room is certain to be speedily used by some other person, probably healthy. Besides the advantage of dealing directly with the insanitary conditions which I have mentioned, much valuable information may be obtained in regard to the previous health, habits, and circumstances of the tuberculous which may be supposed to determine the risk of infection. Here, again, the coöperation of the medical attendant would be indispensable. In fact, there is no doubt that to bring a system of notification into successful working implies an even closer relationship between the medical attendant and the health office than now exists. It will be manifest that much work will be thrown on the health office by the notification of phthisis. In order properly to present and utilise the facts of notification it will be necessary to be able to refer at once to the name, address, and principal facts for any case previously reported. This can be done, but it means a good deal of clerical work. The uses to which notification may be applied do not, at present, admit of complete arrangement. They may be presented in a rough shape, but trial alone will enable us to see how the administration will work out. Phthisis stands precisely in the same position now as did scarlet fever, &c., before notification came into force. The only difference is that the problem is larger. Infection in the case of tuberculosis is more easily traced, our knowledge of the precautions necessary is more certain, and our opportunities of usefulness are infinitely greater and more assured. Otherwise there is no difference, except as a matter of administration, between tuberculosis and other notifiable diseases.

There is one scientific question connected with tuberculosis which, perhaps, needs some consideration—viz., the question of heredity. Were tuberculosis congenital, or were there any tissue tendency towards tuberculosis, it might be maintained that our endeavours to prevent tuberculosis would, to some extent at all events, be thereby baffled. There is, however, no reason for supposing that tuberculosis is congenital, except to a trifling extent. As Koch pointed out in 1882, the lesions of tuberculosis are such that the idea of a latent tuberculosis is scarcely to be entertained. Visible lesions of tuberculosis at birth, however, are very rare, and when they do occur point to infection from the mother through the placental circulation. Moreover, statistics given by Professor Delépine in his paper on Tuberculous Infection through the Alimentary Canal show that the records of post-mortem examinations

available give an almost complete absence of observed tuberculosis in the first two or three weeks of life, the numbers increasing slowly, and then rapidly as the age advances. It is the same with calves. The absence of an inherited latent tuberculosis is further shown by the facts relating to the guinea-pig, the young of which animal, when the mother is tuberculous, is almost never tuberculous, and if reared apart does not become so. Bang's experience with calves is the same. As regards an inherited tissue tendency, we have the facts above mentioned and others of a more general nature, such as the great mortality among healthy people when exposed to intense infection, and also in healthy animals under the same circumstances, and the manner in which the disease has been shown to overrun new populations when freshly introduced among them. Indeed, it would almost seem that infected populations possessed a certain degree of tissue immunity. This conception is strengthened by the large proportion of recoveries from phthisis which we now know to exist, coupled with the temporary refractoriness to tuberculin which is set up after a short course of inoculation. If the recent announcement of the isolation in Koch's laboratory of an immunising body in the bodies of tubercle bacilli be confirmed, this view would be much strengthened. There would remain in that case only the inheritance by the children of tuberculous persons of a weak physique.

Another subject of much importance is the diagnosis of the disease. We have already valuable and much-needed aids in a correct appreciation of commencing tuberculosis. Where a discharge exists we have microscopical examination of the discharge and the extremely delicate test of inoculation, which, however, can only be made in a pathological laboratory. We have also in non-febrile conditions the use of minimal doses of tuberculin, the danger of which is probably not great and which may even be to some extent curative. Finally, we learn from Professor Delépine's paper in the *Medical Chronicle* of April that we may look for a test similar to that now employed for typhoid fever. It would thus seem that we are approaching a period when no error need exist even about living persons, and when, therefore, we may proceed with increased confidence in our preventive measures.

Manchester.

THE PRESENT ASPECT OF THE TREATMENT OF CONGENITAL DISPLACEMENT OF THE HIP.

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THE treatment of this disabling deformity is one that at present exercises the minds of surgeons considerably, because hitherto no particular method has been found to be uniformly successful, and at this time the subject is passing through a transition stage. It is now felt by those who have most experience of the treatment of this affection that operative measures in a wide sense are very far from attaining satisfactory results, and there is, so to speak, a throwback of opinion in favour of the treatment first initiated by Paci—namely, forcible reduction and the maintenance of the limb in the abducted position. Before going into details it will be advisable, first, to review the various phases through which treatment has passed. There is, however, one considerable difficulty in deciding which is the appropriate treatment for cases, and that is the comparative scarcity of specimens in museums from which to gain definite conclusions. But it would seem that certain factors are always present at birth in truly congenital cases—namely, the acetabulum is, as a rule, in its normal position, though abnormal in shape, being triangular, oval, or elongated, yet very seldom absent.

In early cases, notably those described by Lockwood, the cartilaginous rim is wanting and the mass of fat at the fundus of the acetabulum, the gland of Havers, is much hypertrophied. When the cotyloid border is defective the cavity is almost continuous with a flattened surface on the iliac bone, sometimes covered with cartilage, indicating the new position taken by the displaced head. The head of the femur is round, or irregular, or flattened. In some cases it is said to have been absent even at birth, but this fact is not well authenticated. The neck is short and conical, and forms an angle rather less obtuse than normal with the diaphysis. The round ligament is flattened and slender, or in many cases is absent. The capsule is elongated, thinned, its capacity much increased, and sometimes it is distended with fluid. There is often considerable displacement of muscles, and Lockwood has stated that those which surround the joint participate in the disturbance of position, the obturator externus and quadratus femoris being dragged upwards by the ascent of the head of the femur. The ilio-psoas lies in a deep groove which is situated just below, and internal to, the anterior inferior spine of the ilium, and the tendon of the psoas winds backwards in an exaggerated way to reach the lesser trochanter. Such are the appearances often seen, and the points to be recognised at this early period of life are the abnormal shape of the acetabulum, its shallowness, and the frequent deficiency of the cartilaginous rim around it. In children who have walked the acetabulum is seen to remain small, shallow, and triangular. Above and posterior to it and around the new socket there is sometimes found a growth of bone, which forms a partial rim for the new socket and to which the capsular ligament is attached. The neck of the femur may be shortened or absent, and then the head is supported directly by the shaft, but in other cases the neck is still quite distinct, and an important point is the change in its direction. In cases in which the displacement is dorsal the neck is, as it were, bent backwards; in cases of anterior displacement it is bent forwards, so that it no longer forms a proper angle with the shaft. This is an important point in the question of treatment by manipulative measures, as in some cases, while it is quite possible to get the head in a good position, the whole limb and the foot remain turned outwards or inwards, as the case may be. The capsule is elongated, dilated, and in some cases thinned, while in others it is much thickened. It sometimes has a curious hour-glass shape and its cavity is constricted about the middle. The muscles are stated to be contracted considerably, and their contraction in some cases forms a distinct hindrance to reposition of the head of the bone. In adult life these changes are much exaggerated, but Bradford and Lovett remark that the new cavity on which the head of the femur rests is often deep enough to form a good support. The pressure of the head of the femur in its new position causes absorption of the periosteum and redundant joint-capsule in that place, and the capsule finds a new attachment in the osteophytes thrown out to form an upper rim to the new cavity in favourable cases. Muscular contractures around the joint are best seen in adults, and they are no doubt due to the abnormal position of the head of the femur and to the slight flexion and rotation of the thighs. Considerable shortening is found in the psoas and iliacus and in the peri-trochanteric muscles, while the adductors and internal rotators are affected in an equal degree. Such, then, in brief, are the essential departures from the normal which are found at birth, during childhood, and in adult life.

The methods of treatment of congenital displacement of the hip are three—namely: (1) extension, either in the recumbent position or by apparatus; (2) operative measures; and (3) forcible reduction.

1. *Extension, either in the recumbent position or by apparatus*.—This is the oldest form of treatment, and among its advocates are Pravaz, Buckminster Brown, and William Adams. But to Buckminster Brown should be ascribed the credit of having from the first treated cases in this way with considerable success. He subjected his patient, a little girl, aged four years, to complete recumbency with extension for thirteen months and then allowed her to get about for a year in an apparatus by which she could imitate the movements of walking without bearing the weight on the legs. At the end of two years and three months the trochanters were in place, lordosis had disappeared, and the child was able to run about normally. Unfortunately, the patient, when seen nine years after the conclusion of treatment, had lapsed. In this country Mr. William Adams has advocated this method of treatment, and his experiences are recorded.[1] But, unfortunately, we are not told that the patients were able to get about ultimately

[1] Brit. Med. Jour., Feb. 22nd, 1890

without apparatus of any kind. I have tried recumbency with extension in two cases with much promise of success, but at present the patients are getting about and walking with an extension apparatus on, and I am waiting until the apparatus has been off for a year before reporting the cases. Sometimes, where it is not possible to submit the patients to prolonged recumbency, I advise the following modification of this treatment—namely, the use of weight-extension at night and the wearing of an extension-instrument by day, the patient being allowed to walk about at will. This plan is very useful in children under four years of age, but is not successful in older children.

2. *Operative measures.*—Those most in use are Hoffa's and Lorenz's. The details of Hoffa's operation are sufficiently well known; it is very severe when carried to its full extent. It almost amounts to amputation at the hip-joint, the femoral artery and vein, the anterior crural and the sciatic nerves alone being left intact, and there is wide and deep gouging of the bone at the site of the deformed acetabulum. Personally I am strongly of opinion that it is not advisable to persuade a patient to undergo Hoffa's operation, because of the unsatisfactory results by which it is so often followed. Hoffa details the results of 112 operations by him on 82 patients; 30 of them had bilateral and 52 unilateral displacements. Death occurred in 3 cases, in 2 of them being due to prolonged anæsthesia, hæmorrhage, and shock, and the third to iodoform poisoning. In 9 cases ankylosis of the hip followed, and return of luxation in 11. Dr. Halsted Myers, in the "Annals of Surgery," August, 1895, remarks that he has notes of 177 cases of Hoffa's operation, or some of its modifications, and amongst these are 6 deaths due directly to operation—namely, 3 of Hoffa; 2 of Kirmisson, 1 from hæmorrhage and peritonitis, eight days after the operation, following perforation of the acetabulum, and 1 from septicæmia; there is 1 death in a case operated on by Broca. Kirmisson states that he knows of a few fatal cases in the hands of other surgeons which he is not authorised to mention. Another point that militates against Hoffa's operation is the fact that cure is by no means certain. Hoffa has himself stated that he wishes it to be distinctly understood that these children cannot be completely cured, since there is always left some shortening of the limb. In bilateral cases, however, he can reduce the waddling gait to a minimum, and can almost overcome the lordosis.

The details of Lorenz's operation are: Division of the tensor vaginæ femoris through a longitudinal incision starting from the anterior superior spine of the ilium, and to the first incision is added another passing transversely inwards at the level of the trochanter; the anterior wall of the capsule is then denuded and the capsule opened by a crucial incision, the acetabulum is hollowed out, and the head of the femur re-formed if necessary; after which it only remains to pull on the latter until it is brought down to a level with the cotyloid cavity; much assistance is now afforded by section of the ham-strings. Lastly, the limb is put up in a position of slight abduction; in four weeks' time massage and gymnastic exercises are begun, and these must be continued for a year. The advantages of this operation consist in causing comparatively little interference with the muscles. In Dr. Halsted Myers's paper in August, 1895, in the "Annals of Surgery," on Congenital Dislocation of the Hip, it is there remarked that Lorenz had then operated on 63 cases and had recorded no deaths and but 3 relapses. Since then Lorenz must have found much cause for modifying his opinion of the value of his operation, as "after much thought and careful observation of the cases he has operated on he resolved to alter his procedure in many cases," and has carried out bloodless reduction with perfect success. This statement coming from so experienced a surgeon as Lorenz, from one who has devoted himself so much to the subject, is worthy of the greatest consideration. But before Lorenz had arrived at this conclusion other surgeons' thoughts were drifting in the same direction. For instance, Professor Schede of Bonn, who has had experience of treating such cases in two ways, either by the operative method or by the method of rest combined with extension and abduction of the limb, reported very favourably of the latter method.

3. *Forcible reduction.*—Paci's manœuvres are carried out as follows. The patient lying down, the surgeon flexes fully the leg on the thigh, and the thigh on the pelvis. This movement carries the head of the femur downwards, especially when assisted by direct pressure. The thigh is now abducted slightly. After this the limb is strongly rotated outwards, and then rather more rapidly fully extended. The last movement throws the head of the femur into, or on, the acetabulum. Paci in 1894 reported on 15 cases, and they were almost perfect a year or more after operation. With the idea of more effectually fixing the head of the femur in its new position or into its proper position, Lannelongue advises the injection of a few drops of a 10 per cent. solution of chloride of zinc at intervals of three or four weeks. This method has answered very well. Lorenz has modified Paci's method, and his present procedure is as follows: First, lowering the head of the femur by traction. Secondly, depressing the head of the femur to the utmost degree by flexion, followed by forcible abduction. The penetration of the head into the cotyloid cavity is announced by a perceptible shock and click. Thirdly, fixation of the femur by a plaster-of-Paris bandage, which prevents reproduction of the dislocation. The plaster-of-Paris treatment should be continued for several months. Lorenz has now employed this method of treatment in 43 cases, aged upwards of six years, and met with success in every case. No apparatus was ever used after the treatment was finished. As a modification Mikulicz employs an apparatus by which extension is made after the reduction, together with considerable abduction, and the head of the femur is pressed firmly into its new position.

It would seem, then, that of the three methods that have been described that of recumbency with extension, although fairly well tried, has not been quite satisfactory; that of open operation — namely, Hoffa's method — is somewhat dangerous, is by no means perfect in its result, and cannot be relied upon, while that of Lorenz, although less severe, yet also cannot be said to be quite perfect, nor can the originator of that operation admit that he himself is quite satisfied with it, while there is to be noted the sudden change of his opinion in favour of the third measure—namely, forcible reduction. For my own part I have been quite unable to convince myself that it is possible, in the first place, to deepen an imperfect and shallow acetabulum in such a way that the head of the femur can be retained in spite of all the shocks of body movement and weight that it has to bear. Nor in the few cases of Lorenz's operation which I have seen has the result been in any sense satisfactory—either the lordosis or some up-and-down movement has remained, or, as in one case I saw, there was bony ankylosis. This was a young girl, aged thirteen years, who went over to Vienna to be operated upon and came back to show herself to me afterwards. I found firm bony ankylosis of the left hip, surely a very serious occurrence in view of the future possibilities of marriage and pregnancy. Nor do I think that those cases which have been operated upon in England have in any sense satisfied the surgeons that Lorenz's procedure is to be relied upon, or that they have a distinct curative value.

In support of these views is the following abstract from the *Sammlung der Gesellschaft Deutscher Naturforscher und Aerzte*, 1896. Professor Schede, who initiated the discussion, stated that out of a total of 99 cases he had in 98 successfully reduced the dislocation by external manipulation. The ages of the patients ranged from infancy to fifteen years. In children who had not learned to walk the reduction was accomplished under chloroform by simple traction on the limb with the thigh abducted. A return of the displacement was prevented by a plaster-of-Paris bandage, which maintained the abducted position of the limb and at the same time exercised pressure upon the trochanter. In all the children where this simple procedure failed it was necessary to make repeated attempts, and especially to overcome in the first instance by means of extension the resistance offered to the reduction by the contracted soft parts. After reduction in unilateral cases, if the child had learnt to walk, he was allowed to go about in a plaster bandage. But inasmuch as the abducted position results in apparent lengthening of the affected limb, the sole of the sound foot must be heightened to a corresponding degree. In bilateral cases it is strongly urged that both dislocations be reduced at one sitting. The thighs are maintained in an abducted position by a plaster bandage like a pair of bathing-drawers—that is, it stops short at the knees. The bandage should be worn for from four to six months. Lorenz formerly the advocate of operative treatment, continued the discussion, and stated that he had been successful in securing reduction by external manipulation in 83 cases. He drew attention to the value of first employing some method of extension whereby the displaced head of the femur can be drawn down to the level of the acetabulum. The joint is then fixed in

the abducted position until the shorter adductor muscles are sufficiently stretched to allow of the surgeon proceeding to the actual reduction. This latter is accomplished by flexing the thigh to a right angle, and while traction is made in the long axis of the thigh the latter is abducted until the head of the bone enters the socket with a characteristic click. The head may then be felt in its normal position in the inguinal fold midway between the anterior superior spine and the symphysis pubis, while at the same time the thigh becomes visibly longer.

The advantages of securing reduction by manipulation instead of by operation are obvious, apart from the avoidance of risks appertaining to all major operations. There is no scar, there is no possibility of later contracture or of osseous ankylosis, and the after treatment is so simple that children may be treated as out-patients. Operative measures may therefore be said to be restricted in the future to cases in which the manipulative procedure has failed after repeated attempts. Hoffa of Würzburg, Wolff of Berlin, and Kümmel of Hamburg corroborated the opinions expressed by Schede and Lorenz.

It seems, then, that we have reached this position—that operation either by Hoffa's method or by Lorenz's method must be considered seldom necessary, and it is entirely discredited as a means of treating every case of any severity, and that it can only be used as a last resource, and then with no certainty of success, but at considerable risk to the patient. At almost any age up to adult life the manœuvres of Paci, as modified by Lorenz, will be found to afford the best method of treatment. So far, then, we have not attained to any ideal form of treatment of this serious deformity, and the matter must remain for the present in an incomplete stage, but the best we can offer the patient is forcible reduction without an open wound, with the prospect of cure in many cases and of much improvement in others.

Weymouth-street, W.

ON SERUM DIAGNOSIS IN GLANDERS.

BY ALEXANDER G. R. FOULERTON, F.R.C.S. ENG., D.P.H. CAMB.,

IN CHARGE OF THE BIOLOGICAL CHEMISTRY LABORATORY, BRITISH INSTITUTE OF PREVENTIVE MEDICINE.

ALTHOUGH Professor M'Fadyean of the Royal Veterinary College called attention some five months ago to the fact that the serum from a case of equine glanders caused well-marked agglutination in bouillon cultures of the glanders bacillus, no record has hitherto been made of the serum reaction in human glanders. In Professor M'Fadyean's case the serum was diluted with nine times its volume of sterile bouillon and then mixed an equal volume of a bouillon culture of the bacillus. The proportion of serum used was thus one in twenty, and "the reaction was quite distinct after an hour, and at the end of two hours almost the whole of the bacilli had become motionless and collected into large irregular clumps."[1]

In February last I was enabled by the kindness of Mr. Atkinson, house surgeon at King's College Hospital, to investigate thoroughly the serum reactions in a case of glanders occurring in a stable-boy who had been admitted under Mr. Rose. In testing this serum a bacillary emulsion was made as follows. Five c.c. of a 0·5 per cent. sodic chloride solution were added to a five days' old culture of the bacillus on glycerin-agar; the contents of the tube were shaken up gently and then allowed to stand for about an hour in order that any small particles visible to the naked eye might settle. The upper part of the fluid was then pipetted off and the emulsion thus obtained was found to be in every way suitable for the experiments. The bacilli used were of a stock isolated from pus derived from the patient in question. Using hanging drop preparations, in which the proportion of serum to bacillary emulsion was as one to nine, it was found that large clumps always formed before the specimen could be transferred to the stage of the microscope for examination. With one part of serum and nineteen of the emulsion a similar agglutination invariably occurred within ten minutes. Thus the human serum would appear to act more energetically in this respect than does the equine serum as described by Professor M'Fadyean. The agglutinative action of the serum was equally well shown in test-tube experiments. Two series of these experiments were carried out, in one set 0·2 c.c. of the serum with 2 c.c. of the emulsion and in the other 0·1 c.c. of the serum with 2 c.c. of the emulsion being used. There was no appreciable difference in the appearance of the tubes in the two sets of experiments. In either case the upper part of the emulsion began to clear in about six hours, and at the end of twenty hours there was complete sedimentation of the bacilli, which formed a coherent mass at the bottom of the now otherwise clear fluid. Several samples of normal human serum used in the proportion of one part to nine of the emulsion caused no change whatever in the bacilli, whether in hanging drop preparations or in the test tubes. Professor M'Fadyean notes that the same is true of normal equine serum. So far the results of the experiments were quite satisfactory, and in accordance with what has been found to be the action of the serum from cases of cholera, typhoid fever, and diphtheria upon the respective bacteria causing these diseases. But on further investigation it became apparent that this agglutinative action of the glanders serum could not be said to be a specific one so far as the glanders bacillus was concerned, for on repeating the above experiments with a similar bacillary emulsion, but substituting for the glanders serum first anti-diphtheric serum (1 c.c. = 300 normal units) and then four different samples of serum from cases of typhoid fever, it was found that equally well marked agglutination of the glanders bacilli occurred. Similar results were also obtained with bouillon cultures of the bacilli; and it is almost unnecessary to add that control experiments were made throughout.

The result of all this may be summed up as follows. Agglutination of the glanders bacillus can be brought about by contact with (1) a serum from a case of active infection by the glanders bacillus; (2) a serum from a case of active infection by the typhoid bacillus; and (3) a serum from a horse immunised against the diphtheria bacillus. And, on the contrary, no such action is manifested by either normal human or normal equine serum. On reversing the experiments it was found that a certain, though decidedly less active, agglutination of the typhoid bacillus was caused by both anti-diphtheritic serum and glanders serum. With regard to these latter experiments I do not propose to offer any comments now, as I hope to deal fully with them in a paper in the forthcoming volume of Transactions of the Institute of Preventive Medicine. From the above it will be readily seen that the value of the serum reaction in glanders as an aid to clinical diagnosis is extremely doubtful.

As to the interest and immense importance in its bearing on various problems affecting bacterial diseases of the work on serum reactions which we owe to Pfeiffer, Grüber, and Durham there can be no question. But the application of their results for purposes of clinical diagnosis is quite another matter. And without wishing for one moment to underrate the very valuable work in this direction which has been carried out more especially by Widal abroad and in this country by Sheridan Delépine, I would venture to suggest that the absolute specificity of serum agglutination in different diseases has yet to be proved. Indeed, it appears to me to be, in the first instance, most unlikely that the unknown substance which in the serum of typhoid fever—to take that disease as an example—exerts so potent an influence on the typhoid bacillus should be inert as regards other bacteria. One is therefore not surprised to find that the equally unknown, but probably similar, substance in anti-diphtheritic serum has an agglutinative action on both the glanders and typhoid bacilli.[2]

Carlisle-mansions, S.W.

[1] Preliminary Note on the Sero-diagnosis of Glanders, Journal of Comparative Pathology, December, 1896.

[2] With regard to the anti-diphtheritic serum it must not be forgotten that Bordet found that agglutination of typhoid bacilli was sometimes observed with normal equine serum. But normal equine serum has, as already stated, no action of the sort on the glanders bacillus.

THE NEW ELTHAM COTTAGE HOSPITAL.—A dramatic performance will be given on Monday next, May 3rd, at 8.30 P.M., at St. George's Hall, Langham-place, on behalf of the hospital. The play to be performed is the ever popular *Dan'l Druce*. Tickets may be obtained through Mr. Jeken, Bexley-road, Eltham; Dr. Mitchell, Court-road, Eltham; Mr. White, High-street, Eltham; Mr. J. Eagleton, West Chisleburst-park; Mr. E. Hesketh, Court-road, Eltham; Mr. E. R. Sharpe, Court-road, Eltham; and Mr. W. G. Cowell, High-street, Eltham.

A CASE OF POISONING BY QUININE.

BY GEORGE GRESSWELL, M.A. OXON., L.R.C.P. & S. EDIN., L.F.P.S. GLASG.

I WAS summoned to attend a woman said to be in a fit, and found her at about 11 A.M. prostrated, unable to speak, and with a pallor on her countenance like that of impending death. My first impression was that it was the first stage of a very bad case of influenza, and my second that there had been an apoplectic stroke. Inquiry, however, and further observation soon convinced me that the symptoms were to be referred to a large dose of quinine which had been taken before breakfast. The subject was a woman, aged forty-seven years, and for the last three months there had been no menstruation, the climacteric having, no doubt, supervened. She had just vomited about a quart of what she had taken for her breakfast. When the window and door had been opened, and the patient had been placed in a recumbent posture on the sofa, it was not long before she revived a little, and the pulse and heart-beats showed a very slight improvement, as also did her general aspect, but not in any way markedly until after some hours had elapsed. It appeared that she had taken at least about two teaspoonfuls of quinine (sixpennyworth), and probably more, which she had dissolved in a pennyworth of acid, and soon afterwards had taken her usual breakfast. She then seemed unwell, but, in reply to her husband, said she should soon be all right again. As, on the contrary, she rapidly became worse, and seemed to be in a fit, he became sufficiently alarmed to send for me. When I arrived, her hands and face were extremely pale, the pulse was very quick and irregular—almost fluttering, small, thready, and feeble. The number of beats per minute was well over 120. The heart-sounds, though clear, were of little strength, and had a dull, subdued, metallic character, and yet, though weak, possessed at once a greater vigour and regularity than could have been inferred from the pulse. It is, of course, often the case that very erroneous conclusions regarding the central circulatory power may be drawn from an observation of the radial pulse of both sides. Until about 5 P.M. the patient remained speechless and quiescent, but, as she afterwards informed us, not quite unconscious, although she appeared to be so. On the following day she said she had known something of what was going on around her, but had been unable to speak or hear, and she said she saw me during my second visit. She had been sick several times until about 5 P.M., when, on being asked if she would have some tea, she replied that she would like some. It was about 6 30 P M. that I saw her for the second time and found her general condition improved. There was a little colour in her cheeks. The pulse was fuller and quieter, but still numbering 108 per minute. Her heart-sounds were stronger, the cardiac muscle evidently having recovered some of its former power. She was still very deaf. The pupils were rather contracted, and, though they reacted to light, did not do so with much readiness, dilating only slightly. The tongue was throughout clean. She said she had no pain and no headache, but a feeling of uneasiness in the throat She had taken a little brandy and lemonade, but I ordered her to have no more. By inquiry on the following day it was elicited that she had had a queer feeling of faintness about a fortnight ago, and then again about a week ago, but these attacks were described so vaguely that very little account could be taken of them. Some medicine had been given which had helped in producing a sufficient amount of vomiting, although the patient would probably have vomited without the medicine, and no doubt had thrown up the greater part of the quinine. A little calming medicine gave her a good night's sleep, and she awoke refreshed and very much better in the morning. She had again had a little lemonade and brandy. I saw her at noon on the day after the dose, having received a good report of her early. She was able to talk, though she was still deaf, especially in the right ear. She had had a motion on the previous day, but I thought it well to give an aperient pill containing a grain of calomel. The pulse was fairly full and regular, and there was colour in her cheeks. She had had some gruel, and was still recumbent. The tongue was clean but parched, and had little obliquely transverse furrows. Although still weak, she had evidently so far recovered that no further danger was to be apprehended.

On the Wednesday after the Sunday on which the quinine had been taken the patient was again seen in the afternoon. The pulse was then 72, her general condition was greatly improved, yet the heart's action was still feeble and there was a slight presystolic murmur. She was in bed, and had been during the Tuesday. She had taken no solid food. The bowels had acted. There were little furrows on the tongue. The deafness had almost entirely left her. On the following Saturday the patient looked almost quite recovered. The pulse was normal in number and fair in character. The pupils were a little larger, but yet did not react well. There was a slight presystolic hesitation. On the last occasion of seeing her, thirteen days after the above Saturday, her pupils reacted well. There was no deafness. The cheeks had a little colour. The respiration and pulse were good and the heart-sounds were very fair. In describing the onset of her symptoms she said that she first felt faint, then dizzy, was then sick, and then felt "tinglified" in her fingers and all over, and then unconscious and without pain. The deafness was complete and came on rather suddenly, as if from a blow. She heard nothing before the clock striking twelve at night, and that only with the left ear. For some days she was slightly deaf in the right ear. She had been able to see, but did not apprehend the nature of objects until about 4 o'clock in the afternoon.

Although I have attended on previous occasions persons who have taken quinine for ague and malarial fevers in rather large doses, this is the only case of quinine-poisoning I have ever had under my care.

Great Grimsby.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF RUPTURE OF THE HEART.

BY WILLIAM GROOM, M.D. CANTAB.

ON Good Friday morning I received a message to see a lad, aged sixteen years, who, whilst walking with his brother, suddenly fell on the pathway face downwards and was removed to a house close at hand. On my arrival I found him to be dead. The coroner for the Isle of Ely directed me to make a post-mortem examination and attend the inquest, at which the brother in his evidence informed us that about a month previously he and the deceased were at Sutton Bridge hawking fish with a pony and trap; the pony took fright, his brother tried to stop it, and the shaft of the trap pressed him on the chest against some wooden railings. In consequence of this deceased had to stay at Sutton Bridge for five days, and was attended by Mr. Wellington; he then returned home, but remained weak and unwell. At the post-mortem examination no signs whatsoever of injury to the superficial structures or ribs were found; but on opening the pericardium I found it to be filled with blood, some of which was clotted. On removing this, and on turning the heart over without detaching it, I discovered a hole about the size of the end of my little finger through the middle of the back wall of the left ventricle, the actual size of the rupture being about the third of an inch. On removing the heart and opening the ventricle I found the walls to be perfectly sound except at this spot; the hole was quite conical and bulging when my little finger was introduced, and the rupture external and merely consisting of the pericardial covering of the wall. In my opinion, therefore, the accident had caused a partial rupture of the inner part of the wall of the left ventricle (endocardium and some muscle fibres) at a spot opposite to the point on which the shaft of the trap pressed, that the blood pressure had, during the month intervening between the accident and death, caused an aneurysmal bulging of the weakened part, its wall becoming thinner until ultimately it burst. The rupture, seen from the interior of the ventricle, looked much like a bullet hole. Taking into consideration the whole of the facts connected with this case I consider it sufficiently interesting to place

on record. I have sent the heart for preservation to the Anatomical Museum at Cambridge.

Wisbech.

CHRONIC SENILE DIARRHŒA, PROBABLY FROM DEGENERATION OF THE INTESTINAL WALLS.

BY A. J. B. DUPREY, M.R.C.S. ENG., L.R.C.P. LOND.

DEGENERATION is not uncommonly in persons past middle life the source of various uncomfortable symptoms, and in a tropical country such as that of Trinidad, where old age is to some extent premature, we may expect to find senile troubles manifested sooner than in colder climates. Not unfrequently we meet with cases of diarrhœa in persons approaching or beyond sixty years of age, which can only be ascribed to degeneration of the intestinal walls, due either to albuminoid disease or to some perverted action presumably associated with degeneration. The patient whose illness I am about to describe was a female fifty-six years of age and was a member of a family one of whom I had been attending only a few days previously for poisoning by alkaline ptomaines, an accident which not unfrequently occurs in these parts. She had always enjoyed good health until about twelve months ago, when a small tumour, the nature of which was not properly ascertained, was removed from her nose. About nine months ago she observed an undue looseness of the bowels, since which time she had had three attacks of diarrhœa, each of them more severe than the preceding one. The present attack was therefore the fourth. When I first saw her, her temperature was 101·2° F. and her pulse 84; the heart's area was normal; the sounds were very feeble, but no abnormality in the rhythm could be detected; there was dimness of sight and well-marked arcus senilis of both eyes; the tongue was slightly furred. The patient retched very often and occasionally vomited; she also complained of great pain in her abdomen; it was tender on pressure, and she passed fluid evacuations at intervals of twenty minutes or half an hour. As there had been cases of ptomaine poisoning in the house I considered this illness to be of the same kind, and ordered brandy milk with soda water, and a mixture containing bismuth sub-carbonate and nepenthe. During the next twenty-four hours the diarrhœa was less frequent, but symptoms of cardiac failure were developed, so urgent that death appeared to be imminent. The patient had repeated attacks of fainting, sometimes at intervals of fifteen minutes; her skin was almost icy cold, her lips were livid, and the pulse at the wrist was scarcely perceptible. I was at this time informed that she had suffered from fainting fits during her previous attacks of diarrhœa, although never so seriously as at present. Taking into consideration the marked degeneration of her corneal tissue shown by the arcus senilis, her dimness of vision, the failure of the circulation, and the chronic diarrhœa, I came to the conclusion that degeneration resulting from senile changes might have originated her troubles. Artificial warmth was supplied by hot-water bottles and flannels wrung out of hot water; a mixture containing five drops of tincture of digitalis and twenty drops of spirit of nitrous ether was given every four hours and improvement commenced immediately. When she was able to walk about the room five drops of tincture of strophanthus were given three times a day in place of the digitalis; and except for a slight giddiness on getting up in the morning she has satisfactorily recovered. There can be little doubt about either the degeneration of her heart muscle or the prompt efficacy of the digitalis in strengthening the heart's action, and thereby improving the circulation.

Port of Spain, Trinidad, West Indies.

A CASE OF RECURRENT SCIRRHUS OF THE MALE BREAST.

BY SELBY W. PLUMMER, M.D., B.S. DURH.,
HONORARY SURGEON TO THE DURHAM COUNTY HOSPITAL.

A MAN, aged thirty-nine years, was admitted in March of this year under my care into the Durham County Hospital. He gave the following history. Eight years previously he had noticed a small lump in his right breast, which slowly increased for four years. Although painless itself, shooting pains ran down the right arm from it. In January, 1893, this tumour was removed by Dr. Tough of Crook, County Durham. In 1895 the patient again noticed a hard nodule on the upper and outer part of the right chest, which gradually increased, and similar shooting pains were felt down the arm. This growth was freely excised and proved to be a typical scirrhous carcinoma invading a gland. Dr. Tough, having preserved the specimen which he excised, kindly sent it to me for examination, stating that the size on removal was about that of a pigeon's egg, and sections of this specimen showed it to be a scirrhous carcinoma of the mammary gland.

Notes of cases of cancer in the male breast are, I think, always interesting. It should be added that two of this patient's cousins on the female side died from cancer; in one the growth was located in the breast and in the other in the rectum. There is no other family history of predisposition.

Durham.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

NETLEY HOSPITAL.

A CASE DEMONSTRATING THE APPLICATION OF THE ROENTGEN RAYS TO MILITARY SURGERY.

(Under the care of Surgeon-Colonel STEVENSON and Surgeon-Major H. R. WHITEHEAD.)

THE localisation of bullets has always been a matter of great difficulty, and the majority of the older surgeons refused to attempt the removal of a bullet if it were deeply placed; and in this they were fully justified, for the difficulties and dangers of deep dissections were so great that the patient as a rule ran less risk if nothing were done. By the electrical method employed to a slight extent of late years somewhat vague information could be obtained as to the whereabouts of a deeply-seated bullet, but it was not until the introduction of the Roentgen rays that a surgeon could be quite certain of the exact position of the projectile, and in no case is the surgical value of the x rays more obvious than in this. The opacity of a body consisting of lead is so much greater than that of bone that the shadow cast by it is readily discernible, even when the leaden body is entirely surrounded by osseous tissue. It will be seen in the description of the case that the exact position of the metallic body was ascertained by taking two skiagraphs from different aspects.

The patient was a private in the 1st Battalion Gordon Highlanders, and had received a bullet wound just below the left knee on April 3rd, 1895, at the battle of Malakand Pass, Chitral Expedition. He was admitted to hospital and the wound explored, and he stated that three pieces of lead were removed, although this statement was not supported by documentary evidence. The wound eventually healed up, and the man was sent home and admitted to Netley Hospital on April 28th, 1895. On his admission there he had a firmly cicatrised wound two and a half inches in length situated just below the level of the tubercle of the left tibia on the inner side of the leg. The bone was not enlarged, and pressure on the cicatrix was not painful. He complained, however, of pain deep in the bone at times and lameness, and he fancied that the bullet or some part of it remained in the bone. With the assistance of Surgeon-Captain Aldridge skiagraphs were taken of the leg in two positions—the first from the anterior aspect and the second from the inner surface. A spherical bullet was at the same time fastened against the limb, in order that its image might appear in the picture and might assist in determining whether a bullet was embedded in the bone or not. Both skiagraphs showed a disc of metal, the conclusion, therefore, being that the bullet was present

and was spherical in shape. Having taken the measurements carefully so as to locate the exact position of the bullet, Surgeon-Major Whitehead cut down, and by trephine, gouge, and chisel penetrated the bone to the depth indicated. The bullet, however, was not immediately found; the surrounding bone was therefore prospected by a drill till a hard substance was felt slightly below the original cavity. On clearing the bone away and applying the electric bullet-explorer it at once indicated the presence of the bullet. On illuminating the cavity by a small electric lamp the bullet could be seen firmly embedded in the substance of the bone, and it was removed without further difficulty.

Remarks by Surgeon-Major WHITEHEAD.—The interest in this case centres in the help derived from the Roentgen rays. There was nothing objective to make one believe that the bullet was still present. The subjective symptoms, however, pointed to this as a possibility. We doubt if any surgeon would have cared to prospect to the depth at which the bullet was at length found unless he had strong evidence of its presence. By means of the skiagraph obtained by the Roentgen rays all doubt was placed at rest, and the operation was confidently undertaken.

STRATFORD-ON-AVON HOSPITAL.

A CASE OF INTESTINAL OBSTRUCTION DUE TO BANDS; ONE DIVIDED BY OPERATION; OTHERS FOUND POST MORTEM.

(Under the care of Mr. HARRY LUPTON.)

STRANGULATION by a "band" is by no means an uncommon cause of intestinal obstruction, and in the vast majority of cases only one band is present; in fact, so rare is it to meet with more than one that Gay described them under the name of "solitary bands." They are, however, by no means always solitary, but may be very numerous, and, indeed, it seems strange that they are not more frequently multiple when it is considered that their formation is due to peritonitis. The treatment to be adopted in any case of intestinal obstruction must depend greatly on the patient's general condition. If this be bad, the less the bowel is manipulated the better; but if, on the other hand, the patient's general condition is good it is certainly advisable to examine systematically the whole of the intestine in order to see if more than one obstruction exist.

A man, aged twenty-one years, was admitted into the Stratford-on-Avon Hospital on Sept. 19th, 1896, with a history pointing to intestinal obstruction. He was thin and looked phthisical, with flattened sub-clavicular regions. He had waxy, transparent-looking hands, a pinched aspect, with sunken eyes; the temperature was sub-normal, the pulse was fast and inclined to be running; the extremities were cold, and the patient was suffering generally from his journey to the hospital. There was a history of bowel trouble for the previous seven days. During the last three days he had had no passage of fæces save a small amount brought away by enema, and this period was also one of vomiting. He had been sick last on the morning of admission. The practitioner who had seen him outside then sent him into the hospital with a view to operative interference. When the patient had somewhat rallied he was seen in consultation, when it was decided to try the effects of a copious enema before proceeding to other measures, if such were found necessary. It should be noted that his abdomen was pinched and flat, showing no signs of distension, and that his inguinal rings were clear, and no tumour was to be felt in the right flank or elsewhere. The enema brought away, with smaller fragments, four large, hard masses, somewhat larger than a pigeon's egg, brown, slime-coated, and evidently old inhabitants. It seemed probable that these masses might have been the cause of the obstruction—they might be said to have been "facetted," and as if they had dove-tailed into one another—and their removal gave so much relief that a "rest-and-be-thankful" policy was adopted, which policy appeared to be fully justified for twenty-four hours, when a dose of castor-oil was ordered. This was rejected before it passed the mouth, and was followed by vomited matter distinctly feculent in its character. Thereupon, after a further consultation, it was decided that the abdomen should be opened, and the cause of the obstruction sought for. This was accordingly done forthwith, Mr. Norbury and Mr. Greene rendering valued assistance, and chloroform being administered by Dr. George Clark Stewart. The abdomen was opened in the middle line. A couple of fingers swept round the pelvis proved the absence of any hernia at the usual sites, nor could any abnormality be detected in the region of the ileo-cæcal valve. The incision was then prolonged upwards, nearly to the umbilicus. Almost immediately beneath it a coil of congested intestine was seen; this proved to be bound down by a band of about the thickness of a porcupine quill. The intestine appeared to be collapsed on one side and distended on the other. No minute investigations as to the relations of the band were made. It was divided between two pairs of pressure forceps. At this juncture the patient vomited violently and became very collapsed; the intestine, immediately released, swelled up, and the pulse improved. Rapidly passing the fingers over and amongst the intestines disclosed no other obstruction, and Mr. Lupton concluded that he had removed the cause of trouble, and was, moreover, anxious to complete the operation and have the patient in bed again as soon as possible. A sponge passed into the pelvis not returning dry it was decided to drain the pelvis—at all events, for the first twelve hours. The abdomen was cleansed by sponging, and the wound closed with interrupted sutures. On the whole the patient was in a somewhat better condition when removed from the table than when placed upon it, but still bad enough, and a subcutaneous injection of ether was given before he was removed to the ward. On the following morning (sixteen hours after the operation) the patient seemed to be better and expressed himself as relieved. About two ounces of clot and serum had been withdrawn from the drainage-tube—during the last two hours only a couple of drachms of clear, sweet smelling serum. The drainage-tube was removed, and an additional suture tied at the lower end of the wound. All went well till the afternoon, when symptoms of collapse came on, with further vomiting, and he died about twenty-four hours after the operation.

Necropsy.—Permission was obtained to make a post-mortem examination, which was done twenty-four hours after death. The abdomen was opened slightly to the right of the middle line, the insertions of the recti were divided, and the abdominal wall turned back, so as to show the inner aspect of the incision. This was well united, the omentum being adherent along the line of incision. There were no signs of peritonitis and no fluid in the pelvis. On following the intestine down from the duodenum another band was met with, less than the one which had been divided at the operation; it gave way when the finger was placed under it. Further down in the ileum was yet another, passing across the bowel and completely constricting it. And yet nearer to the ileo-cæcal valve the ileum made a journey across to the left brim of the pelvis, where it was crossed by a band passing from the brim of the pelvis to a point below the sacral promontory. This also constricted the bowel, and it was easy to see that the operator's fingers had passed *above* this at the time of the operation and so failed in detecting it. It was barely clear of the pelvic brim until lifted by the fingers.

Remarks by Mr. LUPTON.—That a man should have had four distinct obstructions to a free passage through his intestines, all caused by abnormal and separate adventitious bands, is, I think, unusual. The fact that the operation I undertook for the man's relief failed by reason of its insufficiency I must sorrowfully admit, but the point remains, Did I leave undone at the time of the operation, and under the circumstances, what I ought to have done? It is easy to be wise after the event, and it is far easier to detect abnormal conditions on the table of the post-mortem room with an incision extending from the xiphoid cartilage to the pubes and the insertions of the recti divided, and when there is no fear of collapse before our eyes, than it is in the operating-room, with a limited incision and with a patient in parlous condition on the table. Had I turned out through the limited incision and overhauled the whole length of the intestines I should, no doubt, have found the remaining obstructions. But, to put a perfectly imaginable case, suppose I had done this and found no other obstruction, and the patient failed to rally after the operation, I should naturally have thought, How very unwise I was not to be satisfied when I had released the obvious constriction and how much I wish I had left the rest of the intestines alone. The point appears to me to be interesting, and I would venture

a hope that some whose experience of abdominal surgery is greater than my own may discuss it. In operating for intestinal obstruction, is it advisable to be content when an obstruction has been found and removed, or should it be the rule to overhaul the whole length of the intestine? My own feeling is that cases of multiple obstruction must be so rare that when an obstruction is found and freed, the sooner the wound is closed and the less the disturbance of the remaining intestine the better. I am inclined to think that had I another case with a similar history I should be content with having found an obstruction and released the confined bowel. The bands referred to, with the exception of the pelvic one, passed once across the bowel, from attachment to attachment. It was not the case that a knuckle of intestine had slipped under either one of them, though it was so in the pelvis. I shall be glad if the narration of this case leads to authoritative expression of opinion.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Non-Tuberculous Posterior Basic Meningitis.

A MEETING of this society was held on April 27th, Dr. WILLIAM MARCET, F.R.S., Vice-President, being in the chair.

The adjourned discussion on the paper by Dr. J. W. Carr, read at the meeting of the society on April 13th, and reported in THE LANCET of April 17th, was opened by

Dr. BARLOW, who congratulated Dr. Carr on the thorough and clear presentation of the group of cases referred to in his paper. It was very satisfactory to him to find that Dr. Carr confirmed the description of the clinical type given by him and Dr. Gee years ago. The most typical symptoms were: (1) opisthotonos, which dominated the clinical picture and was a constant, early, and aggressive feature; (2) vomiting; and (3) the tendency to the occurrence of tonic spasm, different from the clonic spasm and subsequent paresis which occurred in tuberculous meningitis as a result of cortical irritation. The limbs were almost always rigid in an extended position. The essential anatomical feature was the occurrence of meningitis, with its maximum in the posterior fossa. Both the intensity of the inflammation and the amount of its extension anteriorly to the base of the cerebrum or downwards into the spinal canal were very variable. But whatever the intensity or extent of the inflammation, it was always characterised by the tendency to the formation of cicatricial adhesions. These could be found post mortem at various points along the spinal cord and often at the tip of the temporo-sphenoidal lobe. But they were particularly apt to occur in the roof of the fourth ventricle, blocking the foramina there. This was accurately described by Hilton in his work on "Rest and Pain," but was only one of the causes of hydrocephalus, as this condition might be produced when the foramen of Magendie was patent. He had seen one case in which it was produced through the blocking of the foramen of Monro, others in which the aqueduct of Sylvius was closed, and one in which the anterior part of the roof of the fourth ventricle was adherent to its floor, and he thought that obstruction sometimes occurred from complete adhesion of the spinal meninges at the level of the first and second cervical vertebræ. With regard to the etiology, he agreed that syphilis was not an operative factor. Syphilitic meningitis did occur, but was usually associated with gummata, signs of cirrhosis, and vascular changes. In one case where symptoms like those described in the paper came on they followed a blow on the occiput, and there were signs of traumatism in the dura mater. Unlike the cases of purulent meningitis that usually followed an acute disease, such as bronchopneumonia, empyema, &c., and which had a more fulminating character, the posterior basic cases came on in previously healthy infants. But both Dr. Lees and himself had been struck with the frequency with which a history of some catarrh had been met with just before the onset of acute symptoms. It was well known that in infants catarrh of any organ tended to become generalised. He thought that some part was possibly played by the moderate amount of otitis media which was found post mortem in these cases as well as in the bodies of most infants dying from disease. It was conceivable that the muco-pus in the middle-ear formed a convenient nidus for the development of organisms which passed from the fauces along the short Eustachian tubes of an infant. The period of life when posterior meningitis was most frequently met with coincided with that during which there was the greatest tendency to middle-ear disease. Many of the cases came from insanitary houses. With regard to treatment the possible causative effect of catarrh and of otitis media must be remembered. In eight cases in which the symptoms appeared to indicate the commencement of posterior meningitis the symptoms were at once relieved by puncture of the tympanic membranes. A certain number of cases had recovered under mercurial treatment. At his suggestion Mr. Ballance had devised an operation for tapping the fourth ventricle, and the symptoms had been relieved for a time, but never permanently. In one case in which a little fluid only was obtained from this region paracentesis of the ventricles through the fontanelle was also practised, and the patient left the hospital well. He died some weeks later, and at the necropsy the signs of meningitis had quite subsided. This case was operated on early and probably that conduced to the good result obtained. In the cases that recovered there was often amaurosis, apparently complete, without any ophthalmoscopic change.

Dr. LEES referred to a case which he had published some years ago in which life was saved by paracentesis of the tympanic membranes. Basic meningitis was mainly a disease of infants under one year of age, but might occur later. He was unable to accept Dr. Carr's explanation of the source of the fluid as due to obstruction of the ventricular veins. He thought that their engorgement was either part of the inflammatory process or secondary to the distension of the ventricles. The low specific gravity and the small amount of albumin present proved that the fluid was neither inflammatory nor dropsical in origin. The fluid, he believed, was cerebro-spinal fluid, and its accumulation was due to some obstruction in the channels which led from the ventricles where the fluid was secreted by the choroid plexuses to the sub-arachnoid space, from which, as Key and Retzius had shown, it was drained off by the roots of the cerebral and spinal nerves. He observed that Dr. Carr found the foramen of Magendie closed in half of his cases, and in two more it was not excluded. He insisted on the importance of examining the condition of this foramen *in situ* before the rest of the body was opened by removing the occiput and the laminæ of the upper cervical vertebræ and then opening the dura mater. The foramen was large proportionally in infants. Closure of the channel might also occur at other points, as described by Dr. Barlow. He confirmed the statement that optic neuritis was very rare, although both increased intra-cranial pressure and meningitis, which were supposed by many to be the efficient factors, were present. Nystagmus was common, and he believed it to be due to cerebellar influence. The patients were often blind, even when hearing appeared to be acute. Slowing of the pulse was less frequent than in tuberculous meningitis, possibly because, owing to the age of the patients, the inhibitory power of the vagus was not developed. The opisthotonos was often extreme, the occiput nearly touching the buttock. The lower limbs were usually in a state of extensor spasm, and the upper limbs were as rigid as the lower, and also usually extended, but occasionally flexed. If the limbs were watched a periodical accentuation of the spasm might be observed, which he attributed to the influence of the cerebellum. The rhythm of the respiration was rarely typical Cheyne-Stokes, but what he called "cyclical," there being a pause followed by three or four deep, sighing respirations. The amaurosis described by Dr. Barlow completely passed off in some cases.

Dr. NORMAN MOORE mentioned that it was the study of a case of tuberculous meningitis which led Monro to the discovery of the foramen that bears his name. He doubted whether one pathological explanation would be found to cover all the cases, and asked whether some of the cases could be possibly rheumatic in origin. He remarked that the opisthotonos often diminished for a few days before death.

Dr. CHURCH said that from the cases that he had seen he was inclined to take a more hopeful view of the prognosis. Two of the most severe cases had recovered completely at the time that they left hospital. In one of these the opisthotonos was so great that at one time the occiput was only three inches from the buttock. Both patients when they had

recovered from the meningitis were found to be blind, although there were no ophthalmoscopic changes.

Mr. BALLANCE said that the first case that he had operated on at the Great Ormond street Children's Hospital was in 1891, and the operation had also been performed independently by Mr. Parkin of Hull and others. He operated by turning down a U-shaped flap and then making a small opening with a trephine on one side (or, better, on both sides) of the middle line in the occipital region. In consequence of the extreme retraction of the head it was convenient to use a special trephine with a long handle. The symptoms were in almost all cases temporarily relieved. He thought that the peculiar "chewing" or "champing" movements of the lower jaw were probably cerebellar, as they were met with in cases of abscess and tumour of that organ. The most effective treatment in the cases that he had seen, other than operation, was administration of mercury internally and incision of the tympanic membranes. He believed that if the disease were of an infective nature early operation would have most influence in stopping it. He had recently seen a case with Dr. Buzzard in which purulent infection of the ventricles came on in an adult after the evacuation of an abscess in the cerebellum. Bacteriological investigation by Dr. Jenner showed that Fränkel's pneumococcus was present, and the injection of a suitable antitoxin serum supplied by Dr. Washbourn relieved the symptoms. Probably if the organism present in these cases could be discovered treatment on these lines would be successful.

Mr. RAYMOND JOHNSON said that he had operated on two of the cases detailed by Dr. Carr, but he should not be inclined to operate again if there was already hydrocephalus, as when free exit was given to the fluid the skull collapsed, and death occurred a few hours later. He thought that early operation alone could be of benefit.

Dr. JOHN ABERCROMBIE said that there seemed to be a season for these cases, most of those he had seen occurring in the spring. One year he saw several in which the symptoms first appeared on the same day in March, and in one instance two children were attacked in the same family. The youngest case that he had seen was that of a child six weeks old, and the disease then ran a very rapid course, death occurring in three weeks.

Dr. CARR, in reply, said that after the information given by Dr. Lees and Dr. Barlow, he felt that the dropsical theory would not account for the effusion of fluid, and he adopted their view that it was retained cerebro-spinal fluid. There was no evidence of a rheumatic causation in any of his cases.

MEDICAL SOCIETY OF LONDON.

Senile Tuberculosis.—Treatment of Gout by an Exclusive Meat Diet and Hot Water.

A MEETING of this society was held on April 26th, the President, Mr. REGINALD HARRISON, being in the chair.

Mr. HOWARD MARSH read a paper on Senile Tuberculosis, which will appear in our columns in full.—Mr. ARMSTRONG spoke of the difficulty of diagnosing between osteo-arthritis and tuberculous disease of the joints in the early stage, and described a case in point in which the diagnosis was only clearly made when softening and suppuration occurred.—Dr. COLMAN referred to three cases of tuberculous disease of the vertebræ in patients sixty years of age without curvature, where the nature of the affection was proved by post-mortem examination, and he confirmed the statement that in adult cases there was often no curvature. He had seen angular curvature produced by syphilitic pachymeningitis, and recalled one case of extensive erosion of vertebræ by an aneurysm in which case there was no curvature, the articular processes being greatly thickened.—Dr. HILL also mentioned a case in which a psoas abscess and an aneurysm eroding several vertebræ were present in the same case without there being any curvature.—Mr. G. R. TURNER referred to the great difficulty of diagnosing between tubercle and syphilis in these cases. In one case the appearance at first pointed to tubercle, and this was confirmed by the presence of signs of tuberculous lung trouble, but the course of the case proved that it was syphilitic.—Dr. THOROWGOOD asked if tubercle bacilli had been found in these cases. He was at present treating an old man suffering from tuberculous laryngitis and phthisis, who had developed an inflammatory affection of the subcutaneous tissues of the back of the hand, which he thought would prove to be tuberculous.—Mr. HOWARD MARSH, in reply, said that bacilli had been found in many of the cases, but that it was often a matter of difficulty to find them even in advanced cases where the diagnosis was not in question. The difficulty of distinguishing between tubercle and syphilis was increased by the fact that they were often present in the same case.

Mr. WILLIAM ARMSTRONG read a paper on the Salisbury Treatment of Gout, which will shortly appear in our columns.—Dr. A. HAIG said that he was familiar with the improvement often noticed in cases treated in this manner, at any rate for a time. It was as difficult at first sight to explain the improvement in cases of arthritis as to explain the good effects of a course of mineral waters at spas where the waters contained abundance of sulphates and lime salts. The same explanation would probably apply to both. He thought that both were stimulants, and as such their first effect was to eliminate uric acid. Meat not merely clears the blood of uric acid, but introduces it into the blood, or at least its physiological equivalents, hypoxanthin, &c. He quoted several cases to show that the treatment is by no means without danger, and he attributed the untoward symptoms to the accumulation of uric acid.—Dr. LUFF said that the effect of the mineral salts in the meat must not be lost sight of. In his recent experiments he had found that the presence of these salts had a great effect in inhibiting the maturation of the ordinary sodium biurate into the quadriurate, which he regarded as one of the chief causes of gout. He did not believe that uric acid was a normal constituent of the blood in man or other animals. It was present in gout from absorption from the kidney, the organ in which it was mainly formed and excreted. Uric acid was also present in the blood in leucocythæmia and pernicious anæmia, and was apparently derived from destruction of the white corpuscles.—Mr. BUCKSTON BROWNE said that no doubt the treatment was very successful in certain cases for a time, but it could not be persevered with for long without danger. He was inclined to attribute the good results obtained to abstention from sweets and starchy food and alcohol rather than to any virtues in the meat diet. He preferred to give a little starch, and all vegetables that grow above ground as well as potatoes and onions, and a moderate meat diet. Under careful diet on these lines symptoms due to uric acid rapidly disappeared.—Dr. THOROWGOOD asked as to the previous habits of the patients who had benefited by the treatment. Persons who lived much on farinaceous food were very liable to flatulent dyspepsia, and their symptoms were often attributed to gout, but rapidly disappeared when the diet was corrected. Possibly uric acid was actually formed in the stomach.—The discussion was adjourned to May 10th.

CLINICAL SOCIETY OF LONDON.

Myeloid Sarcoma of the Jaw.—Congenital Dislocation of the Shoulder.—Hydro-nephrosis.—Muscular Dystrophy.—Subclavian Bruit without any other Symptoms.—Myositis.—Dwarfing of Humeri.—Symmetrical Orbital Swellings.—Keratosis.

A MEETING of this society was held on April 23rd, the President, Dr. BUZZARD, being in the chair.

Mr. CHARTERS SYMONDS showed a boy, fifteen years of age, from whose Lower Jaw he had removed a central Myeloid Sarcoma fifteen months before. The tumour had destroyed a large portion of the jaw and not only projected in front but passed backwards under the tongue. It was removed by enucleation and free erasion from the bone, a bridge of bone along the alveolar border being all that was left for some distance on each side of the middle line. There had been no recurrence, and the patient had now a firm, bony jaw and practically no deformity.

Mr. F. S. EVE showed a case of Congenital Dislocation of the Shoulder. The patient was an infant, nine months old, who was delivered with forceps after a lingering labour. The head of the humerus was displaced backwards, lying just below the spine of the scapula. The case was similar to one shown by him to the society some years ago, in which he had operated and had found the joint well developed, the head of the bone being elongated obliquely backwards. He had to shorten this by shaving off the redundant cartilage

before he was able to put the bone into a proper position; the ultimate result was satisfactory. He thought that the condition was usually due to injury during birth through undue traction on the axilla or to careless handling by the nurse after birth. In one case there was definite evidence of stretching of the brachial plexus.

Mr. HOWARD MARSH showed a case of Hydro-nephrosis in which the collection of fluid was found between the kidney and the capsule. The patient was a man, twenty-one years of age, who was admitted to St. Batholomew's Hospital on April 23rd, 1896, with the history that he had had uneasiness in the left lumbar region for some years, and that three weeks before he had been seized with intense pain in this region which had persisted. The man appeared very ill, and on examination a large, tense, fluctuating tumour was felt. This was incised through the loin and a large collection of blood-stained fluid was found between the capsule and the kidney, which was found collapsed at the bottom of the sac and was removed. Mr. Marsh thought that the hydro-nephrosis must have occurred very rapidly, and the fluid must have been forced through the substance of the kidney, stripping off the capsule. The cyst was drained, but closed very slowly, and even now there was some slight escape of fluid from the wound every few weeks. The patient had completely recovered his health and had resumed his work. Nothing had been discovered to indicate the cause of the hydro-nephrosis.—Mr. G. H. MAKINS said that he had seen Sir William Mac Cormac operate on a case in which a similar collection of fluid between the organ and its capsule occurred as a sequel to traumatic rupture of the kidney.

Dr. W. ESSEX WYNTER showed a case of Muscular Dystrophy of the Landouzy-Déjerine type in a lad, ten years of age, who was admitted to the Middlesex Hospital in January, 1897, on account of a gradually increasing feeling of fatigue and progressive difficulty in walking. As an infant he was backward and did not cut his first tooth till he was four years old. He now exhibited almost complete paralysis of the facial muscles; the muscles of the upper and lower limbs were weak and wasted and showed diminished electrical excitability. The muscles round the right shoulder were most affected, the deltoid having almost disappeared. None of the other members of the family were affected.

Mr. CHARTERS SYMONDS showed a man, twenty-five years of age, with a loud Subclavian Bruit. He had been under observation for six years and during that time he had had prominence and pulsation beneath the left clavicle, and a loud bruit was to be heard in this position. The left pulse was somewhat weaker than the right. As no change had taken place during this time it was clearly not an aneurysm, and Mr. Symonds thought that it was most likely due to the presence of a supernumerary rib which was pressing the subclavian artery forward. He had met with two other cases of subclavian bruit without symptoms—one in a healthy athletic young man, in whom the cause was not known, and the other was probably due to traction on the subclavian artery by the shrinking of the apex of the left lung in a patient with advanced phthisis.—Mr. CLEMENT LUCAS remarked that the late Mr. Hulke had published several cases of this kind, which were at first thought to be exostosis of the first rib, but which were afterwards admitted to be due to a supernumerary rib, and he agreed that this was the probable explanation in this case.—Dr. KINGSTON FOWLER said that the presence of a bruit, or even of a thrill, was not enough to justify the diagnosis of organic disease of the vessels, and he pointed out that in some persons a bruit could be produced merely by pressing the shoulders back.—Dr. C. W. CHAPMAN alluded to the case of a lad, eighteen years of age, who had pulsation and thrill over both subclavian arteries. There was at one time pain down both arms, but this ultimately passed off, although the thrill and bruit persisted.

Dr. KINGSTON FOWLER showed a case of Myositis in a man fifty-four years of age. The patient had previously enjoyed good health and had never had syphilis or gout. In January, 1895, his left thigh became painful, and after a short time some of the muscles were found to be swollen. This swelling increased for some days, the muscles being very hard without œdema of the surrounding parts. There was then a period during which the swelling remained stationary, and it afterwards slowly and completely disappeared. Subsequently various muscles in the calf, shoulder, and other parts were in turn affected in an exactly similar manner, the swelling ultimately completely clearing up except in the biceps, where there were now two small firm nodules. Hard subcutaneous swellings had also formed in the abdominal walls and slowly cleared up, leaving knotty indurations. At present the muscles of the left arm were passing through an attack, the axillary glands were enlarged, and there was some induration of the skin of the neck similar to that formerly present in the abdominal walls. Skiagrams of the arm showed that the bones were normal and that there were no actual bony deposits in the muscles. Dr. Fowler raised the question whether this case ought to be placed in a separate category from myositis ossificans, and suggested that possibly ossification did not occur owing to the patient's age. Warm baths had given the man more relief than any other mode of treatment.—Mr. CHARTERS SYMONDS said that this patient had formerly been under his care at Guy's Hospital, and he confirmed the description of the cycle of changes in the muscles given by Dr. Fowler. Anti-syphilitic remedies had been thoroughly tried without the slightest benefit.—Dr. PARKES WEBER said that the case was like those which had been described as "relapsing dermato-myositis." In several of the recorded cases there had been affection of the glands and nerves. From the position of the patient's hand in this case (Charcot's "attitude of benediction") there must be some paralysis of the ulnar nerve, and the case might therefore, perhaps, be described as one of neuro-dermato-myositis.

Mr. F. S. EVE showed a girl, fourteen years of age, with marked Dwarfing of both Humeri. The condition was first noticed on the right side when she was six years old, and the left limb was affected shortly afterwards. The humerus was now three inches, and the arm as a whole four and a half inches, shorter than the standard for a girl of her height. The lower limbs were normal. There were some creaking and limitation of movement in the right shoulder and a little also in the left. The girl was fat, somewhat lethargic, and she was slow at her lessons. The thyroid gland was not palpable. She was the youngest of eleven children, the others being healthy. There was no direct evidence of specific disease, but there was slight scarring at the angles of the mouth. He thought that the diagnosis lay between a cretinoid condition and syphilitic epiphysitis of the upper ends of the humeri. This would account for the changes in the shoulder-joint.

Dr. W. ESSEX WYNTER showed a boy, aged five years, who exhibited Symmetrical Swellings in the Orbits and both Temporal Regions. He was under the care of Mr. Treacher Collins in 1896 for proptosis of the left eye with failure of vision. Optic neuritis was present and was followed by atrophy. An exploratory incision was made into the orbit, but without disclosing the cause of the swelling, which afterwards subsided. Some months later swelling occurred in both temporal regions, the right eye became prominent, and the sight began to fail, and when admitted into the Middlesex Hospital he had optic neuritis. The parents thought that there had been some impairment of intelligence and difficulty in walking during the last month. There was some enlargement of the glands in the axilla neck, and groins, and one of these, which was excised, proved to be tuberculous. Round the margin of the swelling in the right temple there were some hard nodules, apparently bony elevations on the cranium.

Dr. COLCOTT FOX showed a lad, ten years of age, who exhibited extreme Keratosis of the nail beds, causing deformities of the fingers and toes, as well as perfectly symmetrical Horny Callosities of the size of walnuts over the ankles, with smaller ones, also symmetrical, on the soles, popliteal spaces, and buttocks. Dr. Fox pointed out that pressure could not account for many of them. The father and grandfather were said to have had a similar condition of the nails and to have had remarkably coarse hair, but there was nothing unusual in the patient in this respect. Dr. Fox showed illustrations from other recorded cases of the kind.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Sewer Ventilation and Health.

A MEETING of this society was held on April 9th, the President, Dr. G. P. BATE, being in the chair.

Dr. F. J. ALLAN read a paper on Sewer Ventilation and Health, the outcome of inquiries conducted by himself at the

request of the Strand Local Board as to the experience of a number of sanitary authorities in London and elsewhere with regard to street sewer ventilators. With one or two exceptions the replies, fifty-eight in number, admitted the fact of complaints of offensive smells—at least, in some parts—but the answers to the question whether they had been able to trace any deleterious influence on health to emanations from the street level or other ventilators were less definite, save as regards shafts, to which, when not most improperly placed, no objections were raised, and some authorities found their action, alone or in association with openings at the street level, perfect, the lower apertures where they were retained being converted into inlets only. Notwithstanding the negative evidence as to the occurrence of disease germs in sewer air or gases, Dr. Allan maintained that its inhalation could not but be hurtful by inducing a low state of health, diminished resistance to infection, and, as Alessi's experiments showed, a condition highly favourable to the growth of pathogenic organisms, especially those of a septic character. The poison was, he thought, not so much in the well-known hydrocarbons and sulphur compounds as in indetermined organic products like those given off from the lungs, most abundant and most virulent in ill-constructed sewers, with foul deposits, and in those receiving hot water and factory wastes. That such gases must be allowed to escape, and that their entrance into houses, either directly or by forcing of traps, must be prevented, was obvious; but he doubted the soundness of the views of those who advocated unlimited dilution of sewer air by multiplication of openings as involving a corresponding contamination of the atmosphere of our towns and logically justifying the return to open gutters in the street. He admitted the necessity for ventilation so far as to relieve the pressure on the traps, but held that it should not be more than was required to compensate for the movements of the sewage and changes of atmospheric pressure and temperature, while every effort should be made in the way of improved construction and flushing to avoid deposits and putrefaction. After referring to contrivances in his own district for a coarse screening of the out-going air, and at Worcester for its filtration through cotton-wool treated with germicides, as well as to the Reeves system of chemically evolving permanganic acid and sulphurous dioxide in the ventilating shafts, he went on to discuss the replies he had received as to the practical working of the Keeling-Holman and Webb's or Deakin's patents for ventilating and burning the sewer gases; those as to Keeling's, in which the combustion was effected in a gas furnace in the base of a column, were on the whole unsatisfactory on the score either of efficiency or of cost; but they were decidedly favourable as to Deakin's, in which the sewer gases were burnt in the lantern with apparent increase of illuminating power. Dr. Allan's conclusions were that well-constructed sewers required compensatory ventilation only, which might be at any level, whereas in those of a different character some form of constant ventilation was necessary, the outlets being preferably at a considerable elevation, and that the best arrangements were those providing for the combustion of the gases at the same time.

LIVERPOOL MEDICAL INSTITUTION.

Malignant Growth of the Orbit.—Tumour of the Pons Cerebri.—Presystolic Murmur without Mitral Stenosis.—Addison's Disease.—Peroneal Spasm.

A MEETING of this society was held on April 22nd, 1897, Mr. CHARLES SHEARS, Vice-President, being in the chair.

Mr. C. G. LEE showed a case of Malignant Growth of the Orbit. The patient was a man, aged forty-three years, who had, in October, 1895, a swelling at the inner angle of the right orbit. The growth was considered to be a sarcoma both by Mr. Lee and Mr. Edgar Browne. An operation was performed at once. The growth extended deeply into the orbit above and downwards into the antrum; only a portion of the growth was removed. The patient made a slow recovery, but by January, 1896, the growth had again made its appearance; it was now on a level with the superciliary ridge, and was slightly depressing the eyeball outwards. The tumour continued to grow until March, 1896, when the patient was lost sight of. However, in the following October he again presented himself, when there was scarcely any sign of tumour. The patient attributed his improvement to the use of Ceylon cinnamon. Sections of the excised portions of the tumour were pronounced to be of a malignant nature.—Mr. LARKIN described a case he saw several times with his colleague, Dr. Grossmann, and which closely resembled Mr. Lee's case. The patient also recovered, but without using cinnamon.—Mr. SHEARS also made remarks.

Dr. P. DAVIDSON read notes of a case of Tumour of the Pons Cerebri. The rapid occurrence of paralysis of the sixth and seventh cranial nerves of the right side, with weakness and ataxia of the lower limbs and increased knee-jerks, warranted the diagnosis of a tumour invading the right side of the pons. The subsequent occurrence of paralysis of the left sixth and seventh cranial nerves confirmed the diagnosis of a rapidly growing mass. The diagnosis was entirely confirmed by the necropsy, the tumour being tuberculous. No optic neuritis was present during the first two months.—Mr. RICHARD WILLIAMS said that all the cases of cerebral tumour he had seen had optic neuritis sooner or later, but naturally only the cases whose vision was affected were likely to come under his observation.—Mr. BICKERTON said that in many cases of cerebral tumour optic neuritis did not occur.—Mr. MACLEOD ROSS, Mr. SHEARS, and Mr. C. G. LEE also discussed the point as to the frequency of cerebral tumour without optic neuritis.

Dr. A. DAVIDSON drew attention to the occasional occurrence of a Presystolic Murmur at the Apex of the Heart in cases of Aortic Regurgitation, where subsequent post-mortem examination showed the absence of mitral stenosis. He referred to two cases where this occurred in his own hospital practice. The same observation had been made by the late Dr. A. Flint of New York, and the matter was referred to at length by Dr. Sansom in his book on the heart, otherwise it appeared to be much overlooked.—Mr. MACLEOD ROSS suggested that in some cases of aortic regurgitation where there was no mitral stenosis yet a presystolic murmur, it might be the result of digitalis or other cardiac tonic.—Dr. O'HAGAN related a case which had been examined by men of the highest standing. This patient had a presystolic murmur, but at the necropsy there was no mitral stenosis.—Dr. A. C. E. HARRIS thought the characteristics of a presystolic murmur were mainly its roughness and limited diffusibility, and that in the cases in question these characteristics would be lost or the murmur might be of a musical kind. The importance of Dr. Davidson's observations on prognosis he fully realised.—Dr. DICKINSON, Dr. BRADSHAW, and Dr. BUCHANAN took part in the discussion.

Dr. BRADSHAW read a note on Addison's Disease. He pointed out that neither the glandular nor the nervous hypothesis of the pathology of the disease was quite satisfactory. He criticised Mühlmann's hypothesis, which is that the adrenals are concerned with the elimination of pyrocatechin, which they effect under the influence of the sympathetic, and that when the adrenals or the sympathetic are diseased pyrocatechin accumulates in the blood, and by its toxic action gives rise to the symptoms of Addison's disease. Dr. Bradshaw showed that when pyrocatechin was in the blood it quickly appeared in the urine, but he had failed to find evidence of it in the urine of three patients with Addison's disease who had been under his care during the last few weeks. This and other considerations led him to conclude that Mühlmann's idea could not be maintained. He then showed two patients with Addison's Disease, and the Caseous Adrenals of a patient whom he had shown previously to the society. The semilunar ganglia appeared normal.—Dr. STOOKES and Mr. NEWBOLT made remarks.

Mr. ROBERT JONES read a note on Peroneal Spasm and its Treatment. He drew attention to the causal relationship of spasm of the peronei to a certain type of flat-foot. Many flat feet were accompanied by spasm, but in one variety exhibiting characteristic symptoms the spasm proved the sole cause of the deformity. Of sixty tabulated cases males were affected in the proportion of four to one. Mr. Jones dwelt on the differential diagnosis of this condition from osseous, rheumatic, and hysterical valgus. He had operated on forty cases and found nothing short of an excision of portions of the peronei sufficed. An incision was made at the side of the fibula just above the malleolus, and the peroneus longus was laid bare and about three-quarters of an inch removed. The peroneus brevis was exposed and the same amount of its tendinous portion excised. The foot was then placed in a

varus position for a fortnight and the patient allowed to walk with an altered boot in three weeks. Simple tenotomy was not sufficient.—Mr. NEWBOLT had seen a number of cases of spasmodic flat-foot, and he agreed with the method of treatment adopted by Mr. Jones.—Mr. PUZEY and Mr. MURRAY made remarks.—Mr. JONES replied.

PATHOLOGICAL SOCIETY OF MANCHESTER.

Nerve Cells.—Exfoliating Cystitis.—Recurrent Appendicitis.—Pernicious Anæmia.—Exhibition of Specimens.

A MEETING of this society was held on April 14th, Dr. THOMAS HARRIS, the President, being in the chair.

Mr. FRICKE gave a Lantern Demonstration on the Structure of Nerve Cells, and discussed some recent methods of investigation.

Dr. WALLS described two cases of Exfoliating Cystitis secondary to retroversion of the gravid uterus. The first patient came under treatment when four months pregnant, and although the conditions were so bad that a fortnight elapsed before the uterus could be replaced pregnancy went on to term. The second patient presented herself after abortion had taken place.

Mr. SOUTHAM made some remarks on the Pathology of Recurrent Appendicitis, and exhibited a number of appendices removed from twenty cases treated by operation. These showed the changes usually met with in this condition—viz., thickening of the wall of the appendix, with constriction or occlusion of its lumen, which in many cases was dilated on the distal side of the obstruction and distended with fluid. In three cases fæcal concretions were found and in one instance a pin. Suppuration had occurred in eight instances, a localised abscess having formed in six cases, while in two there was diffuse purulent peritonitis. Specimens were also shown to illustrate the fact that adhesions might be present after a single attack, or absent after many attacks, of appendicitis.

Dr. MERCER showed Preparations from a case of Pernicious Anæmia in a child aged seven years, running a rapidly fatal course and marked by profound anæmia with pyrexia and gastro-intestinal disturbances. The red blood corpuscles were reduced to 1,000,000 per cubic millimetre and the hæmoglobin to less than 20 per cent., with marked poikilocytosis. The chief points of interest were: (1) the age, the disease being distinctly rare in children; (2) the rapid course the duration from onset to death being less than three months; and (3) the probability of the disease being of septic origin. The child had long-standing middle-ear mischief, and the rapid course and symptoms generally pointed to a rapid destruction of the red corpuscles by the action of a toxin in the blood. At the post-mortem examination advanced fatty degenerative changes were found in the liver and heart, together with a small amount of deposit of iron granules in the liver cells. The spleen was somewhat enlarged, but no morbid changes were discovered under the microscope. The red marrow contained numerous nucleated red corpuscles, but no other abnormal cells.

The following card specimens were shown:—

Dr. FOTHERGILL: Chorioma Malignum.

Mr. FRICKE: (1) Karyokinesis in Cancer Cells; and (2) Secondary Cancer in the Skull.

Dr. HARRIS: (1) Lardaceous Organs; and (2) Aortic Aneurysm.

Dr. LEA: Uterine Specimens.

Mr. MONTGOMERY: Intussusception.

Mr. SOUTHAM: Double Encysted Hydrocele of the Epididymis.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

Strangulated Femoral Hernia.—Intestinal Anastomosis.

A MEETING of this section was held on April 2nd, Mr. WILLIAM THOMSON, the President, being in the chair.

Mr. HEUSTON brought forward two cases of Strangulated Femoral Hernia in women over sixty years of age, where, owing to the gangrenous condition of the intestine, it was necessary to excise the intestine and corresponding mesentery. In the first case the symptoms of strangulation had lasted for four days before the operation and the patient was in an extremely collapsed condition; eleven inches of the intestine were removed and the intestine was united by suture. The patient died three days after the operation from collapse, when the intestine was found united, but gangrene had supervened in it for about an inch above the line of suture. The second patient was seen two days after the symptoms of strangulation had come on; eight inches of the intestine were removed and the intestine united by suture; the patient recovered perfectly without complication, the method of radical cure employed in both cases being that advocated some years since by Mr. Heuston and described in Treves's Operative Surgery. In both cases no fluid was contained in the sac, which was intimately attached to the gangrenous contents. Mr. Heuston recommended primary resection whenever possible, instead of the older method of artificial anus, statistics showing that the mortality after artificial anus was about 90 per cent., while that after resection was 47 per cent. He objected to the use of any of the foreign bodies which had been introduced within the past few years, and claimed that the union could be completed by suture in as short a time as by any of these appliances.

Professor BALL brought forward a new pattern of Decalcified Bone Ring for End-to-end Intestinal Anastomosis. It resembled in shape a Murphy's button, but was made in one piece with a deep groove round the circumference of sufficient width to allow the edges of the divided intestine to be involuted, while keeping the peritoneal surfaces in contact, the groove being under-cut to accommodate any surplus intestine. Its essential feature is a lacing suture loosely connecting both ends of bowel round their entire circumference; the ring is subsequently introduced by pulling apart two of the loops, and as the suture is tightened it falls into the groove in the ring, drawing in, and firmly uniting, both edges of divided intestine, while the lips of the groove support the peritoneal surfaces of the intestine in apposition. An additional continuous suture passed round the entire circumference through the outer coats of the bowel only, where the peritoneal surfaces are in contact, completes the union. The decalcified bone was absorbed without difficulty. Four cases were described of the use of this ring, one being a resection of the small intestine for a large gangrenous hernia, one a resection of the upper portion of the rectum, and two being colectomies for malignant disease; one of the latter, a case of very extensive cancer of the transverse colon, died suddenly seven days after operation; the other three made perfect recoveries.—Mr. LENTAIGNE believed Professor Ball's button to be one of the most rapid means obtainable of procuring safe anastomosis, but would not say it was better than Mr. Hayes' method. He could not agree with Mr. Heuston's recommendation that the suture should be used in all cases.—Mr. MCARDLE made some observations in favour of Murphy's button.

CARDIFF PROVIDENT DISPENSARY.—The twelfth annual meeting of the governors of this institution was recently held. The honorary secretary presented the report, which showed that the number of new families admitted as benefit members during the year was 246 and the number of prescriptions dispensed was 20,084. The former showed a decrease and the latter an increase on the numbers for 1895. The number of families now on the books was 1501.

SOUTH-WEST LONDON MEDICAL SOCIETY.—A meeting of this society was held at Lavender-hill, S.W., on April 14th, Dr. Benjamin Duke being in the chair.—Dr. Caldwell Smith read a paper on the Etiology of Diphtheria, with special reference to two localised outbreaks in Wandsworth, in which he drew attention to the influence of school attendance in causing the spread of the disease.—Dr. Sims Woodhead then gave a limelight demonstration of the Bacillus Diphtheriæ and of the effects of the disease on the nerves, muscles, and other tissues of the body. He emphasised the fact that these injurious effects may occur as early as the third day, and that they cannot be repaired by any amount of antitoxin. He asserted, however, that this, if injected before the third day, will cure 95 per cent. of the cases.—A discussion followed, in which Mr. T. A. I. Howell, Mr. John Gay, Dr. W. Y. Orr, Mr. R. F. Frazer, Mr. A. E. Dodson, and others took part.

Reviews and Notices of Books.

The Practice of Medicine: a Text-book for Practitioners and Students, with Special Reference to Diagnosis and Treatment. By JAMES TYSON, M.D. Manchester: John H. King and Son. 1896.

The Practice of Medicine. By HORATIO C. WOOD, A.M., M.D., LL.D., and REGINALD H. FITZ, A.M., M.D. London and Philadelphia: J. B. Lippincott Company. 1897.

THE publication within a few weeks of one another of two entirely new works on systematic medicine excites both surprise and admiration—surprise that it should be deemed necessary to add to the already teeming list of works of this class, and admiration at the skill and labour expended on such formidable tasks. For the production of a text-book on medicine in the present day must involve a bestowal of time and labour that can hardly be realised by the reader, who expects to find within the pages of the work the very latest information upon the subjects of which it treats, and the author must, if he be desirous of justifying the claims of his book to consideration, have been most diligent in supplementing his individual experiences with the results of recent investigation. We do not wonder, therefore, that Dr. Tyson in his prefatory remarks should say that the preparation of his book has been the product of years of labour, and we trust that he will find his efforts rewarded by the appreciation which his book will doubtless receive. Of the two works before us, undoubtedly Dr. Tyson's is the more exhaustive and the more ambitious, and it is evident that he has endeavoured to maintain a true proportion between the separate departments of the subject. An interesting feature is the introduction of a concise historical account of the diseases which are dealt with. The infectious diseases are first considered, the subject of typhoid fever opening the volume. We note the approval given to the bath treatment of typhoid patients, and the author's deprecation of the prescription of antipyretic drugs, whilst some excellent practical instructions are appended for the guidance of nurses in preventing contagion. As an instance of the "up-to-date" character of the book it may be noted that there are some paragraphs upon the serum treatment as introduced in 1896 by R. Pfeiffer and W. Kolbe. The final passage of the article is significant: "The *antiseptic treatment* has not a truly rational basis, while the extravagant claims of its advocates discredit their results." The malarial fevers receive adequate notice, including a full description of the "malarial parasite." In respect to cholera the importance of bacteriological examination in diagnosis is insisted on, and directions are given for carrying this out. Under the section on "Treatment" mention is made of M. Haffkine's results of protective inoculation, which is considered to be very promising, and detailed instructions are given as to prophylaxis in dealing with the sick. As is to be expected, the serum treatment of diphtheria receives attention, and it is justifiably held that its introduction has considerably modified opinion on the prognosis of this disease.

Passing over many pages, we come to the sections devoted to Diseases of the Digestive System, where we find under the head of "Diagnostic Technique" a full description of the methods for the chemical examination of the gastric contents that have been mainly familiarised by the writings of Ewald. It is owing to the introduction of these methods that amongst the varieties of gastric dyspepsia it is now legitimate to deal separately with "hyperchlorhydria," to which the author devotes some pages, although he is careful to point out that the same condition may also be met with in organic disease. The "diarrhœas of children" are, we are glad to see, discussed apart, and they are distinguished as depending on at least three different conditions—namely, acute dyspeptic diarrhœa, cholera infantum, and acute entero-colitis. Appendicitis receives ample notice, being introduced by a very interesting historical survey of the evolution of knowledge concerning typhlitis and perityphlitis, and full justice is done to the acumen of the present esteemed President of the Royal College of Physicians of London in early recognising that the appendix was a constant starting point of cæcal inflammation. Three "degrees or stages" of appendicitis are discriminated by the author—(*a*) catarrhal, (*b*) ulcerative, and (*c*) interstitial or parietal. Dr. Tyson speaks very judiciously about the period and indications for surgical intervention, and we commend the following dictum to the consideration of surgeons as well as of physicians. He says (p. 307): "It must be admitted that it is not always easy to lay down a rule by which operation shall be determined, for it is not only that we must know when to operate to save life, but also that we must know when not to operate in cases so severe that operation will be futile, and it is due to the operation that it should be saved the opprobrium of such futility. Certain it is, too, that in cases where operation is of no avail death will be hastened by it, the depressing effect of etherisation co-operating to hasten the fatal end." The various forms of intestinal obstruction are succinctly described and their differential diagnosis discussed. The subjects of gall-stones and affections of the bile-ducts precede that of diseases of the liver, where, it may be remarked, the two forms of cirrhosis are treated together, although the author does admit that the "hypertrophic" variety is in the main etiologically, as well as clinically, distinct from the "atrophic" form. The sections devoted to diseases of the respiratory organs and to diseases of the heart and bloodvessels call for no comment, save that they appear to be exact and well planned, especially as regards the articles on croupous pneumonia, pulmonary tuberculosis, malignant endocarditis, and aneurysm. Diseases of the blood follow, wherein we find separate mention made of splenic anæmia or pseudo-leukæmia, a condition well worthy of extended study, especially in relation to its radical treatment by splenectomy. Noting that "exophthalmic goitre" here finds a place amongst diseases of the thyroid gland, and that myxœdema and cretinism are thoroughly dealt with according to the most recent knowledge, we may direct attention to the succeeding section upon Diseases of the Urinary Organs as affording an excellent study of Bright's disease—a subject to which Dr. Tyson has himself been no mean contributor. The "constitutional" diseases, comprising rheumatism, gout, diabetes, rickets, scurvy, and many other conditions, follow. Diseases of the nervous system are next treated without prolixity and with considerable lucidity, a valuable summary of facts in connexion with the relation of infectious processes to such diseases being appended. Perhaps more space might have been devoted to the myopathies, which are described in the next section. The "Intoxications" and "Parasites" form the closing chapters of a work which represents the outcome of much well-directed labour and constitutes a reliable and useful text-book.

We learn from the preface of the joint work of Dr. H. C. Wood and Dr. R. H. Fitz that the former has contributed the section on Nervous Diseases, the articles on Diseases of the Muscles and on the various infectious diseases except diphtheria, dysentery, tuberculosis, leprosy and syphilis, the chapter on Acute and Chronic Poisoning, and all the therapeutics of the book, the remainder of the volume being from the pen of Dr. Fitz. The scope of the work is practically identical with that of Dr. Tyson, for in neither is there any section devoted to diseases of the skin; but the arrangement is different, and so also is the mode of treating the various subjects. There are no bibliographical

references in this, the smaller work, and there are very few illustrations. Tuberculosis in all its local manifestations, including pulmonary phthisis, finds a place amongst infectious diseases, whilst considerable space is devoted to functional nervous diseases, including insanity. The sections devoted to thoracic and abdominal affections are such as may be expected from writers who may well claim to rank among recognised authorities in these departments, and although, from the point of view of symmetry, exception might be taken to a disproportionate treatment of some of the subjects, it is always of advantage to receive at first hand the personal experiences of an author. We have no doubt that this text-book will take a worthy place amongst works of its class, for it is comprehensive without being diffuse, and its teaching is rational and accurate. Whilst, then, welcoming these two most recent additions to the literature of general medicine, it is difficult to avoid the thought that the multiplication of text-books must tend greatly to embarrass the student in his choice—a reflection tempered by the knowledge that as between two such works as these he will not suffer by the selection of either.

System of Diseases of the Eye. By American, British, Dutch, French, German, and Spanish Authors. Edited by WILLIAM F. NORRIS, A.M., M.D., and CHARLES A. OLIVER, A.M., M.D., of Philadelphia, Pa., U.S.A. Vol. I.: Embryology, Anatomy, and Physiology of the Eye. With Twenty-three Plates and 362 Illustrations. London and Philadelphia: J. B. Lippincott Company. 1897. Pp. 670. Price £1 1*s.*

IT is quite time that an English Encyclopædia of Ophthalmology should be undertaken. The French have in De Wecker and Landolt's "Traité Complet d'Ophtalmologie," of which the fourth and concluding volume was published in 1839, a splendid work of reference brought up with great care and research to that date, and the Germans have the invaluable "Handbuch der Gesammten Augenheilkunde" in seven volumes of Professor von Graefe and Professor Saemisch, which was completed in 1877. But the English student unable to read French or German has been compelled to content himself with the text-books of Berry, Juler, Swanzy, Noyes, Roosa, or the smaller vade-mecums of Lawson and Macnamara. Excellently written as these are, they all attack the subject from the purely practical side. Not one of them contains an exhaustive account of even such large subjects as the anatomy and physiology of the eye, the development of the eye, congenital malformations and abnormalities of it, or describes the relation of ophthalmic disease to the general affections of the system, whilst many important subjects are only glanced at and indicated rather than discussed. The present System of Ophthalmology appears under very favourable auspices. The firm by whom it is published is a liberal one and has spared no expense in illustrations, in type, or in the general get-up of the volume. The editors are gentlemen of high position and large knowledge, and the list of contributors is in itself a promise that the several articles will be well and conscientiously written. With the best men of six nations this System should surpass all its predecessors in fulness and in accuracy. During the last ten years great advances have been made in almost every branch of ophthalmic work, and we sincerely wish success to Dr. Norris and Dr. Oliver in their great undertaking.

The present volume contains eleven articles, the enumeration of which, with the names of the writers, will give some idea of the plan and scope of the work. 1. The first article is by Dr. John Ryder of Philadelphia (to whose premature death the editors refer), who contributed the section on the Development of the Eye. 2. Dr. Thomas Dwight of Boston gives the Anatomy of the Orbit and the Appendages of the Eye. 3. Dr. Frank Baker of Washington, the Anatomy of the Eyeball and of the Intra-orbital Portion of the Optic Nerve. 4. Dr. George Piersol of Philadelphia, the Microscopical Anatomy of the Eyeball. 5. Dr. Alexander Hill, of Cambridge, England, the Anatomy of the Intracranial Portion of the Visual Apparatus. 6. Mr. William Lang and Mr. E. Treacher Collins of London supply the article on Congenital Malformations and Abnormalities of the Human Eye. 7. Dr. E. Jackson, of Philadelphia, writes that on the Dioptrics of the Eye. 8. Dr. J. McKeen Cattell, of New York, that on the Perception of Light. 9. Dr. Eugen Brodhun, of Berlin, discusses Binocular Vision, Conflict of the Fields of Vision, and Natural Size of Objects, &c. 10. Dr. W. Thomson, of Philadelphia, assisted by Dr. Carl Weiland, of Philadelphia, describes Normal Colour Perception; and lastly (11), Dr. Carl Mays, of Heidelberg, gives the Photo-chemistry of the Retina. It would, we fancy, have astonished Mackenzie, Tyrrell, or Lawrence to find that the united labours of three men were required to give a satisfactory account of the second pair of cerebral nerves, and to describe them within the eye, in the orbit, and in the cranium; whilst of the subjects taken up in the two last-named articles one would have been dismissed by the older systematists in a couple of lines, and the other would have been unintelligible to them.

The several articles seem to us to have had full justice done to them by their respective writers. It is difficult to criticise them, because, as each author has only a limited subject to discuss and a free hand given to him in regard to space, he has had an opportunity of introducing all recent and reliable knowledge and at the same time to interweave with the facts discovered or opinions expressed by others the results of his own investigations, which cannot easily be dissociated from them. The chief objection, which, however, is not a serious one, is that the articles of different authors are apt to overlap, as in the case of the cornea, which is treated fully by Dr. Frank Baker in his description of the Anatomy of the Eyeball, and not less fully by Dr. George Piersol in the account he gives of the Microscopical Anatomy of the Eyeball. Both accounts are good, but they might have been combined and condensed. We are struck with the pains the authors, not of these papers only, but of several of the other articles, have taken to collect statistics and the statements of many observers where there are differences in the observations that have been made. Thus in Dr. Baker's article it is given in the text that according to Krause the index of refraction of the cornea is 1·3523, that of distilled water being 1·3358; but in a note it is added that other authorities have given somewhat different figures—Charles Chossat, for example, giving it at 1·33, Aubert at 1·377, L. Matthiessen, 1·3754, and A. Macalister at 1·3825, with in each instance the correct reference, all of which means careful literary work. Yet we observe that Dr. Jackson, in his article on the Dioptrics of the Eye, gives a number which coincides with none of them—viz., 1·3365. There is a similar comparison of the data given by different observers in regard to the thickness of the cornea at the periphery and at the centre, and in regard to the relative length of the several axes of the eye. Both Dr. Baker and Dr. Piersol admit a dilator as well as a sphincter pupillæ muscle, resting their opinion partly on microscopical and partly on physiological grounds. The article on the Dioptrics of the Eye, written by Dr. Jackson, who is known to have devoted great attention to them, is, of course, excellent, but it is short and keeps very strictly to the subject, probably because such subjects as astigmia and other defects of vision will be considered in separate articles. He originally recommended, and still advises, that in adding to the metric series the preservation of the simplicity of the system should be maintained by making the interval one-eighth dioptre, which gives an

exact division of the interval previously adopted. The lenses between 1 and 2 dioptres would therefore be 1·12, 1·25, 1·37, 1·50, and 1·75. The article on Normal Colour Perception, by Dr. Thomson and Dr. Weiland, will be read with interest. It contains an account of the most recent views of Helmholtz, with a running commentary upon them. Of the remaining articles, as those of Mr. Collins and of Mr. Lang, of Dr. Mays, Dr. Brodhun, Dr. Dwight, and Dr. Cattell, it is sufficient to say that they contain a vast amount of information not easily accessible elsewhere, and invaluable to those who are engaged in the study of ophthalmic disease.

Sanitation and Health. By Brigadier-General R. C. HART, V.C., C.B., R.E., commanding a district in India. Revised by Brigade-Surgeon-Lieutenant-Colonel T. H. HENDLEY, C.I.E., M.R.C.S. Eng., L.R.C.P. Lond., &c., Administrative Medical Officer, Rajputana, and Residency Surgeon, Jeypore, &c. Third Edition. London: Wm. Clowes and Sons, Limited. 1897. Price 1*s.* 6*d.*

THIS small volume is authorised by the War Office for use in all army schools, which is in itself a sufficient indication of the estimate which the military authorities have formed of its merits. We have read it with much gratification: it affords a large amount of information in a condensed and simple form on subjects which it concerns all ranks in the army to know something about. It makes no claim to originality, but it is carefully and correctly compiled. The pamphlet owes its origin to the fact that (as he then was) Colonel Hart, who was in command of the Rohilkund district in 1888, when there was much sickness during the rainy season among the troops stationed at Ranikhet, delivered a lecture to the soldiers in the station; and this lecture has since been revised by Brigade-Surgeon Lieutenant-Colonel Hendley at the lecturer's request. The volume treats of a number of evils which are always present in India, and points out in intelligible terms how much it lies in the power of every individual to safeguard himself and others against them by the exercise of proper care and a little thoughtfulness. Its merits in these respects, which are undoubted, must have been generally recognised, or it would not have reached a third edition.

There is still room, however, in our opinion, for the production of a work for the general use of soldiers which should deal in their own language with personal hygiene in army life in India; that is to say, in a style so familiar, simple, clear, and practical as to be popular among them. A man like William Cobbett, who had himself served as a soldier in the ranks of the British Army, could, for example, have written a work such as everybody would read; and that it would be eminently useful there can be no doubt. A treatise of this sort need not be a big work, for that in itself would destroy its value; it should not be scientific in tone, but free from moralising and technicalities, long words, and attempts at fine writing; moreover, it should be familiar and simple in style, with pertinent anecdotes, crisp illustrations, and humorous references interspersed here and there—appealing to the common sense and moral qualities that are common to all except the basest and most degraded. There is no reason why one great class of disease, omitted from the work under notice, should not be introduced. Rudyard Kipling has given us a true insight into the nature and character of Tommy Atkins as he actually is and has indicated the way in which he can best be approached. In spite of all his faults Tommy is a strong man and a true man and really a grand fellow. Why should we not tell him the truth about things and prove to him that he need not be a fool, and that if, like the rest of us, he is an animal, he need not be a brute? We have an idea of how such a book as we are contemplating could, and should, be written, and we put forward our suggestion in the hope and belief that some medical officer with knowledge of the soldier and some experience of the tropical service will act upon it. The kernel of the work must consist of facts and figures stated in their shortest and most graphic form and in large type as headings to chapters. This might be followed by a statement to the effect that, "Nor did this state of things end here. It is bad enough that out of an army of such a strength so many men should be deprived of their liberty, should be sick and in pain, and passing weary nights in hospital, instead of amusing themselves outside; but this is succeeded by ....." Then should follow an anecdote or story drawn from real life, and this again by an answer to the soldier's inquiry, "Well, what do you want me to do?" in which the necessary advice is given in terse, plain terms. At soldiers' ages men are restrained by thoughts of home, their mothers and their sweethearts, when they are not by religion; and if reference be made to such subjects in judicious touches here and there, and maudlin sentimentality be avoided, the influence and effect might be salutary and good.

The Law of, and Practice in, Lunacy. By A. WOOD RENTON, M.A., LL.B. Edinburgh: Wm. Green and Sons. London: Stevens and Haynes. 1896.

THIS is a very voluminous book and contains what appears to be a very full collection of statutes, which have been carefully and we should think skilfully annotated. It is timely, having regard to the period which has elapsed since the publication of the last edition of Mr. Pope's book upon lunacy—for Mr. Pitt Lewis's work of 1895 comprised but a meagre collection of statutes, and thus left a gap which Mr. Wood Renton has now filled. His work is probably more interesting and useful from the point of view of the practising lawyer than from that of the medical jurist for the dissertation and systematic statement of the law are by no means in proportion, in respect either of bulk or comprehensiveness, to the volume of the book, which is made up mainly of the statutes and annotations thereupon. Thus we look in vain for any systematic treatment of the topic—all important from our particular point of view—of the care and custody of the insane; nor have we succeeded, even with the help of the index, in discovering the latest utterances upon the theme, painfully interesting to practising medical men, of actions for false imprisonment. These references are sufficient to show that this big book is not free from big lacunæ. Even in the matters that are treated systematically we find ourselves tempted to complain that greater thoroughness was to be desired. Thus Mr. Renton arrives as the result of a very brief review of the legal test of lunacy at the conclusion from which as medical jurists, we should strongly dissent, that "there is a steady approximation towards the only uniform test of lunacy which is desirable or possible—viz., was the person whose act is in question able to understand its nature, and to pass a fairly rational judgment on its consequences to himself and others, and was he a free agent so far as that act was concerned?" Now, this strikes us as being very inadequate. In the first place the question of lunacy is in many cases not a question of an act and its consequences at all, but a question of the individual's condition and the duties which that condition imposes upon his neighbours. For these cases Mr. Renton's only possible test affords no criterion whatever. In the next place, in order to answer the question which he propounds as the test, it is necessary first to ascertain whether the person in question was sound in mind or no. If sound he must be presumed able to understand the nature of his act, &c., but not

otherwise, so that the criterion of soundness must be applied first and from the reaction to that criterion an answer to Mr. Renton's question may be deduced. But it is idle to say that the criterion for testamentary capacity is the same, or tends to become the same, as for criminal responsibility, or this again to be identified with the test of susceptibility for medical treatment or necessity for control. All these things are so radically different *inter se*, that although practical convenience is consulted by treating them all as phases of one condition identified as lunacy, only mistakes and confusion of ideas are fostered by suggesting that they are all so similar in character as to be recognisable by a common test.

We have referred above to the general excellence of Mr. Renton's notes upon the statute law. It is due both to him and to our readers to point out that in the table of statutes prefixed to the book there is on page 63 an unfortunate printer's error, which has resulted in producing some confusion between the references to the Lunacy Act of 1891 and the County Councils Act of that year. The latter is not of great importance from the present point of view; whereas the former is, by reason of its date, one of the topics for which Mr. Renton's book will be most frequently consulted. The slip occasions some perplexity, which cannot well be cleared up by way of explanation, but can easily be set right by any reader of the book whose attention has been drawn to it.

LIBRARY TABLE.

The Drainage of Villages. By WILLIAM SPINKS, Assoc. M. Inst. C. E., &c. Second Edition. London: Sanitary Publishing Co., Limited.—Of a subject which is unquestionably one of the most pressing social problems Mr. Spinks' work forms a useful epitome, presenting in a very small compass a large amount of practical information illustrative of what is considered to be the best practice of to-day. It is throughout well supported by references to the best authorities, whilst the several tables given, together with collated extracts from the numerous by-laws dealing with the question, form by no means the least valuable part of Mr. Spinks' little manual. The ground covered in the four divisions into which the book is separated is considerable and presents a clear, if rapid, sketch to those interested who cannot find opportunity for the study of more voluminous text-books, and will certainly be found convenient for reference by a great number of others engaged in such work. It must, however, be added that, though in towns the disposal of sewage by means of a regular system of water-carriage would seem to be a matter of necessity, it is certainly open to serious question whether its universal application to rural districts might not prove anything but an unmixed blessing.

The Idiot: his Place in Creation and his Claims on Society. By Sir FREDERIC BATEMAN, M.D. Aberd., LL.D. Second Edition. London: Jarrold and Sons. Pp. 120.—Sir Frederic Bateman explains in his preface that the arguments contained in this essay formed the nucleus of an address advocating the claims of the idiot upon the philanthropists of East Anglia at a public meeting held in Norwich in support of the Eastern Counties Asylum for Idiots. In addition to much technical matter in reference to consanguinous marriages, parental intemperance, overpressure in education, and other factors having a causal relationship to idiocy, the author shows how the study of the idiot is calculated to throw light upon the abstruse question of the connexion between matter and mind, and that the whole subject is fraught with interest not only to the philanthropist but to the theologian and to the political economist. Sir Frederic Bateman's definition of idiocy is in our opinion an excellent one both pathologically and psychically. It runs as follows: "An idiot is a human being who possesses the tripartite nature of man, body, soul, and spirit, *σῶμα*, *ψυχή*, *πνεῦμα*, but who is the subject of an infirmity consisting, anatomically, of a defective organisation and want of development of the brain, resulting in an inability, more or less complete, for the exercise of the intellectual, moral, and sensitive faculties." A strong distinction is also drawn between idiocy and insanity; this point is especially recommended to the careful consideration of the legislators of the country. The whole book is most charmingly written. The arguments are sound and expressed in phraseology which can be understood by the laity, whilst at the same time losing none of their force for presentation to the professional mind. We sincerely wish that the work may carry out the intention of the original address—namely, to claim sympathy for the institution in support of which it was written—and at the same time draw attention to the true state of the sufferers in the institution, who, like all those similarly affected, "have the germ of intellectual activity and of moral responsibility, and this germ, cherished and nourished by the genial warmth of human kindness, fenced round and protected from the blasts and buffetings of the world by the cords of true philanthropy, and watered by the dew of human sympathy, although possibly only permitted to bud here, is destined hereafter to expand into a perfect flower and flourish perennially in another and a better state of being."

Who's Who, 1897. First year of new issue. Edited by DOUGLAS SLADEN. London: A. and C. Black, Soho-square. Price 3*s.* 6*d.*—This is a useful work of reference, containing, in Part 1 at all events, a variety of information which everybody ought to know and very few people do know. The book, however, is not free from inaccuracies. For instance, it states that Mr. Ernest Hart was for "several years co-editor of LANCET." This is quite incorrect. Mr. Hart was at one time a member of the sub-editorial staff of this journal, but he was never co-editor. Dr. James Wakley succeeded his father, the Founder of THE LANCET, as Editor, and on Dr. Wakley's death in 1886 the present Editors, Thomas Wakley and Thomas Wakley, jun., became responsible for the control of the journal, of which there have been no other editors or "co-editors." The preface to the book is amusing. Does anybody really often ask himself, "What paper is it that 'Madge,' or 'Logroller,' or 'Red Spinner' writes for?" Mr. Sladen also tells us that "certain men and women whose untimely death has left a great gap filled in their biographical forms before they went." We should have thought it sufficiently obvious that they could not have done it afterwards, but anyway the editor has not included anyone not living. The most entertaining part of the book is the section called Biographies, as the biographies are for the most part autobiographies, and in many instances the amount of information given is in inverse ratio to the importance of the giver or subject.

The Swedish System of Physical Education. By THEODORA JOHNSON, Principal of the Swedish Institute, Clifton, Bristol. Bristol: John Wright and Co. Pp. 79. Price 3*s.* 6*d.*—This small book gives a good description of the Swedish system of physical education written by one who is well qualified for the work, having had twelve years' experience of it in England and of observations made in Sweden. The objects of the exercises and the methods of performing them are plainly and fully set forth, and the descriptions of the movements are aided by outline drawings. It seems a pity that less cumbrous terms for the exercises could not be adopted; thus, "arch stoop sitting trunk upraising," or "forward arch lying armflinging," are unwieldly. The insertion of verbs would make the title longer but more explicit. Some of the observations made by the author

are much to the point, and we cordially endorse them. For instance: "When we find that a doctor gives any man or woman *six lessons* in which to acquire the requisite knowledge of anatomy, physiology, disease, and its treatment by manipulation, and grants, forsooth, a certificate by means of which such person trades upon the ignorance of a gullible public, causing pain and exhaustion, if not serious injury, and so brings 'massage' into sorry disrepute ..... a grave responsibility is incurred." With the condemnation of such a practice we thoroughly agree. It is now too common an occurrence for medical men to teach nurses massage and to take fees from them which they can barely afford, the number of lessons given being absurdly few, and yet their pupils blossom forth as "certificated masseuses" only to live a life of poverty, the market being terribly overstocked. We also agree with the author's remarks in respect to Ling's and Zander's methods, believing that the "delicate manipulations of a highly-developed human hand" are superior to mechanical appliances. With one observation we are not in accord—namely, when the English medical profession is charged with "insular prejudice against anything branded as 'foreign.'" There is probably no country in which the medical profession is so open to receive instruction from, or the results of observations made by, foreign observers as England. The state of our medical libraries is proof of this, where the periodical literature as well as monographs and treatises from all countries are eagerly collected.

Zalma. By T. MULLET ELLIS. London: Ash Partners, Limited.—Mr. Mullet Ellis in this work reminds us by turns of Miss Corelli, Lord Beaconsfield, that immortal work "Codlingsby," Crookshank's Bacteriology, various "penny bloods," "Jack Harkaway," and the earlier effusions of Ouida. But we will credit him with having evolved a simply amazing story, of the *roman à clef* type. Zalma was beautiful and extremely wicked; she also wore the most magnificent clothes, the descriptions of which are enough to make Mrs. Aria or "Virginia" green with envy. The following is her presentation dress, and having read the account of it we can only wonder that she was admitted. "She was in the loveliest pink gown, covered with a mass of old Brussels lace, softened yet more with the softness of fur and feather, and brightened with the damask light of watered silk, revealing, whilst it still concealed, her pulsing busts, which hid behind the down of fur and lace as though they were moons about to appear from masses of feathery clouds." After passing through various vicissitudes, such as a secret marriage, living with the wicked nobleman of the story as his mistress, when she wore a satin dressing-gown with "the allurements of an opening frill," she took to bacteriology, and, having being brought up as an anarchist, bethought herself of working universal destruction by scattering noxious bacilli broadcast, and accordingly cultivated anthrax bacilli in tubs (*sic*), intending to disseminate the cultures over the land by the aid of balloons. However, her scheme was nipped in the bud, and after a Bohemian ball she committed suicide. Mr. Mullet Ellis has taken some trouble to get his bacteriology correct, and for this he deserves praise, but his book is a fine specimen of burlesque.

SUPERSTITION IN THE WEST OF ENGLAND.—The *Western Morning News* reports a remarkable case of superstition. A young woman in Penzance had suffered from "fits," and as a remedy she procured a live toad, placed it in a bag, hung it round her neck, and carried it next to her body. She was also attending a local infirmary and was cured of the attacks, but it is stated that the woman believes that this was only a coincidence and that her strange talisman was the means by which her cure was effected.

Analytical Records
FROM
THE LANCET LABORATORY.

DIETERICH'S PREPARATIONS.

(AGENCY: M. BUCHNER, 149, HOUNDSDITCH, E.C.)

PREPARATIONS of the following type are interesting as examples of skilful chemical combination. The constituents are so associated as not only to result in a stable mixture, but to yield also a combination in which each is presented in an acceptable and easily appropriated form. Thus in the preparation known as ferro-mangan-iodine-peptonate we obtained conclusive proof of the presence and kind of each of the components indicated. It is a somewhat syrupy, sweet, brown liquid, with aromatic taste, and is offered as a substitute for cod-liver oil, partly on account of the iodine combination and partly on account of its beneficial action upon the processes of nutrition. In another preparation the iodine is omitted, while in a third the metals are combined in the form of saccharate instead of peptonate. From a consideration of their composition there is little doubt that they would serve as powerful tonics in many conditions. Of a like complex composition are the cod-liver oil compounds with iron, manganese, quinine, phosphorus, bromine, sulphur, &c., which again, in spite of this complexity, are clear and stable preparations. Moreover, they are reliably constituted, since we were able to satisfy ourselves as to the presence of each of the medicaments indicated. A preparation of interest on the same list is the extract of malted acorns. It is a light impalpable powder not unlike cocoa, with a pleasant malty and aromatic taste, and turning dark brown on the addition of water. It is practically soluble and contains a large proportion of dextrine, as shown by the iodine reaction. It is said to be indicated in rickets in children and persons suffering from the effects of malnutrition. In the capsules which, when taken together, comprise, it is stated, a remedy for tape-worm, are contained, on the one hand, extract of male fern, and on the other castor-oil. The combination is well known as effective when the extract of male fern is taken at night before rest, followed by the castor-oil in the morning. Lastly, the list of specimens submitted to us concludes with "glue bandages" and "soap glue bandages," which offer certain advantages in the protection as well as treatment of wounds or of abrasions. They may be obtained with or without the antiseptic substances usually employed in such bandages. An improvement in umbilical bandages has been also recently introduced by the same firm.

BLACK'S PATENT FOOD.

(HUGH BLACK, 27, MILL-STREET, ROTHESAY.)

There can be little doubt of the high nutritious value of this food. Apart from the somewhat diverse nature of the ingredients employed, each contributing its own specific food value, the method by which it is prepared is calculated to render it not difficult of digestion. It is first prepared from a mixture of lentils, flour, new milk, and eggs, and made into crisp rusks, which are afterwards ground with maize, oatmeal, and lentil flour, and a little sugar and salt added. The microscope served to confirm this statement in regard to each and all of the ingredients. The food yields a high proportion of essential mineral constituents. The taste is good, and the preparation is evidently a food of high merit.

"EODALB."

(J. W. NICHOLL, 25, HIGH-STREET, BELFAST.—AGENTS: F. NEWBERY AND SONS, 1, KING EDWARD STREET, NEWGATE-STREET, E.C.)

This is a dark, olive-coloured, oily preparation containing iodine in a somewhat modified form to the extent of 10 per cent.

and possessing a faint, though distinct, smell of the essential oil of roses. It does not stain, or produce irritation, while it is rapidly absorbed when rubbed on the skin, as is evidenced by the fact that within a few minutes after the application the taste of iodine is experienced in the mouth, and, as we proved, the presence of iodine may be also demonstrated in the urine. The preparation dissolved completely in chloroform without change of colour, but on adding thio-sulphate of soda the iodine was evidently destroyed, the liquid remaining a dark brown. On treating "Eodalb" with alkali a similar discharge of colour took place, and the oil was saponified. The preparation is one of considerable importance in connexion with the external administration of iodine for many obvious purposes. Whilst ensuring the specific action of the drug, it is free from the marked disadvantages of ordinary iodine preparations.

LACTOMALTINE.

Lactomaltine consists, as our experiments have shown, of a powerfully active malt extract combined with milk and cream. It possesses a good, rich, malty flavour, modified favourably by the smooth taste of milk and cream. On dissolving the preparation in water a milky fluid results, in which under the microscope the fatty particles are seen to exist in a finely divided condition. Lactomaltine is also prepared with hypophosphites. The preparation is clearly a reliable one. An introduction of distinct advantage connected with the bottling of this preparation is that a celluloid cap is provided with each bottle, so that the objectionable stickiness met with in constantly extracting and inserting a cork is satisfactorily avoided.

DALU KOLA TEA.

(THE DALU KOLA TEA CO., LIMITED, IMPERIAL WAREHOUSES, LEMAN STREET, E.)

Characteristic of tea that is grown from China seed in Ceylon, the specimen before us yielded a satisfactory infusion of a light character and free from excessive astringent properties. The infusion, though agreeably tea-like to the taste, is not powerful. It yielded on incineration 5·40 per cent. mineral matter, the alkalinity of which was 1·59 per cent. in terms of potash. There was no indication, therefore, of objectionable treatment or sophistication. The caffeine amounted to 2·8 per cent., a figure in accordance with the composition of tea of good quality.

PURE EXTRACT OF MALTED BARLEY.

(THE DISTILLER COMPANY, LTD., 12, TORPHICHEN-STREET, EDINBURGH.)

This extract is characterised by a remarkable degree of concentration and a very agreeable malty flavour, which is quite free from caramel-like taste, in spite of which its digestive activity upon starch is particularly well marked. In short, it possesses all the satisfactory characters of a malt extract that is concentrated with care and with a due regard to the requirements that it is destined to fulfil. This result might be expected of a product made by a firm which, like the above, possesses a large and wide experience of malting processes.

FREEMASONRY: ÆSCULAPIUS LODGE.—A regular meeting was held at the Café Royal, Regent-street, on Wednesday, April 14th, when there was a good attendance of members and visitors. The Master, Thomas Dutton, M.D. Durh., was in the chair. L. Hemmington Pegler, M.D. Edin., H. Simpson Lunn, B.A., M.D. Dub., W. E. Gillson, M.R.C.S. Eng., L.R.C.P. Lond., and G. Newton Pitt, M.A., M.D. Cantab., F.R.C.P. Lond., were admitted to the third degree, and E. Ramsay White, F.R.C.S. Eng., to the second degree. E. H. Ezard, M.D., D.Sc. Edin., was elected Master for the ensuing year, and G. Danford Thomas, M.D. Brux., coroner for Central London, treasurer. A very sociable evening, the pleasure of which was enhanced by the musical members, was afterwards spent.

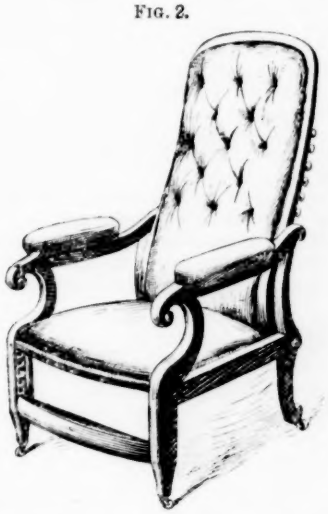
New Inventions.

A COMBINATION COUCH-CHAIR FOR THE CONSULTING-ROOM.

MANY general practitioners, owing to the limited area of their consulting-rooms, cannot afford space for a couch of convenient size on which minor gynæcological operations might be effectively performed. Medical men in country practice frequently suffer much inconvenience by having to examine patients per vaginam on an ordinary sitting-room sofa. Many combination chair-couches have been invented and patented, but are offered for sale at prices absolutely prohibitive except to the wealthiest members of the profession. The accompanying illustrations depict a chair which combines extreme simplicity of construction with the utmost rigidity and the most absolute comfort. It is an extremely comfortable and ornamental easy-chair which with half a minute's manipulation can be converted into a perfectly rigid couch capable of bearing a dead weight of 350 lb. A practical cabinet-maker tells me that he can make it in excellent materials for £5.

FIG. 1.

FIG. 2.



MAURICE G. MCELLIGOTT, L.R.C.P., L.R.C.S.Irel., L.M.
Belper, Derbyshire.

A NEW PATTERN OF SCISSORS FOR PERINEAL REPAIR.

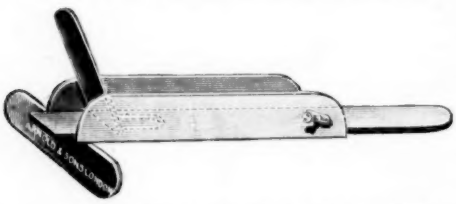
MESSRS. DOWN BROTHERS, of St. Thomas's-street, Borough, have constructed for me a pair of scissors which are much better for flap-splitting operations than anything I have seen before. They are slim but firm in the blades, the points are very carefully made, and the blades slope gradually to the hilt, so that the flaps can be made with one cut each, and therefore will have perfectly true surfaces—a matter of much importance and I fear, not sufficiently attended to. The joint is a beautiful French contrivance which I first saw on a pair of catch-forceps, and have adapted it to scissors, where it has the important advantage of keeping the cutting edges of the two blades in accurate adaptation. It also enables the blades to be unshipped instantly, and is

therefore an advantage for aseptic purposes. From the number of cases coming to me of failure of what is said to have been "Tait's" operation I fear my original instructions are not being carried out, for I have altered the operation in no particular and I have no failures to record. My rules are: cut cleanly and deeply on the white cicatricial lines which indicate the healing of the original tear; insert the stitches deeply *within* the skin margin and miss about half an inch at the bottom of the wound. Use salmon gut sutures and tie tightly. Close the skin wound, if needful, by a few superficial sutures. Keep the vagina clean by washing out with soap and water night and morning, and keep the rectum empty.

Birmingham. LAWSON TAIT, F.R.C.S. Eng. and Edin.

NEW PATELLA SPLINT.

THIS splint I have used with complete success in the treatment of fracture of the patella, and in my opinion it is the best appliance for that injury. It consists of a wooden trough with foot-board, in which I fix the limb. Along the upper border of the patella should be placed a padded cord, with lengths extending down both sides of the leg to a pin or screw fixed in the sides of the troughs at about five or six inches distant from the centre of the fracture. Upon tightening this cord apposition of the upper with the lower



portion of the patella is perfected. No constriction of adjacent tissue occurs to endanger punctual ossification and union. By making the two pins (to which the cord is fastened) as rotating screws tension is easily adjusted for exact apposition of the displaced fragment. The usual V posing of the patient is unnecessary; thus another hindrance to the freedom of circulation is dispensed with—a serious consideration in treating these cases.

FRED. DALTON, L.R.C.P. Lond., M.R.C.S. Eng.

Rottingdean, Brighton.

COMBINED TONGUE DEPRESSOR AND INSUFFLATOR.

A COMBINED tongue depressor and insufflator, invented by Mr. W. Thomas, of Bridgend, Glamorganshire, has been sent to us by Messrs. Woolley, Sons, and Co., Limited, of Manchester. The instrument is in one piece, and therefore easily rendered aseptic by immersion in boiling water, and is provided with a glass screen, which, while allowing a good view of the fauces to be obtained, prevents the operator being infected by the child coughing. The instrument will be chiefly of use for insufflating the throats of children, as, for instance, with sulphur in diphtheria, as inspection and insufflation can be carried out simultaneously. The instrument is strong and well finished, and can be obtained, complete, for 8*s.* 6*d.*

SPUTUM BOX AND STAINS.

MR. FEARNLEY of Harrogate has lately introduced a box containing all the requisites for examining sputum and excreta for the tubercle bacilli. The box contains carbol-fuchsine and acid methylene blue in very convenient drop bottles, slides, cover glasses, cedar oil for mounting, spirit lamp, vessels for water, filter papers, scissors, forceps, &c. The box is accompanied by directions by Mr. Fearnley for the use of the stains which are so admirably clear that anyone without previous training can make reliable preparations if he carries them out carefully, and the whole process need not take more than ten minutes. The stains supplied are of excellent quality. The sputum box will be a great boon to the busy country practitioner, who can easily make reliable preparations for himself at once, and will not have to wait until he has obtained a report from some distant authority. The box can be obtained from Mr. Freshfield Reynolds, pharmaceutical chemist, Harrogate, price 12*s.* 6*d.*

THE PROPOSED CENTRAL HOSPITAL BOARD.

THE following is the text of the petition to be presented to His Royal Highness the Prince of Wales concerning the formation of a Central Hospital Board:—

TO HIS ROYAL HIGHNESS THE PRINCE OF WALES, K.G., &c.

We, the undersigned members of the Medical Profession in London, and others interested in the welfare of Metropolitan medical charities, humbly venture to submit to Your Royal Highness the following short statement, in the hope that Your Royal Highness may be willing to accede to our petition.

In accordance with a communication addressed by Your Royal Highness to the Public, the Prince of Wales's Hospital Fund for London has been established in honour of the Diamond Jubilee of our Most Gracious Majesty the Queen.

To this Fund a very large sum has already been contributed, both in commemoration of Her Majesty's reign, and in the hope that the hospitals of London may be relieved from the heavy financial pressure from which many of them are suffering.

The establishment and maintenance of so large a Fund under Your Royal Highness's auspices will affect the condition of the hospitals of London for many years to come.

For the distribution of so important a public gift, we venture, in the interests of the poor, the Public, and the hospitals themselves, to urge the formation, at an early date, of a Central Hospital Board, including lay and medical representatives of the medical charities of the Metropolis.

This proposal has already received the approval of a large number of the members of medical profession, and of many others interested in the welfare of the poor.

Established with your Royal Highness's sanction, such a Board would do much to promote consultation and coöperation amongst those who are attached to, or engaged in the management of, London hospitals and dispensaries.

Consultation and coöperation thus promoted would enable the hospitals to deal with some of the acknowledged difficulties of their work, as, for instance, the regulation of the out-patient departments.

The Central Board would also be a guarantee to the contributors that the fund would aid the hospitals in the most thorough and satisfactory manner; by furthering the development of medical charity in such a way as to meet the wants of the growing population of the metropolis; and by preventing those evils of pauperism and dependence which medical relief cannot but produce, if it be not administered with care and discretion and in accordance with sound principles of charity.

All this we would submit to Your Royal Highness, and would at the same time beg that, in view of the great importance of the subject, Your Royal Highness will receive a deputation of leading members of the medical profession and others interested in medical charities, in order that they may explain personally their reasons for asking Your Royal Highness to consider the proposal that we have ventured to make.

And your Petitioners will ever pray.

THE LANCET.

LONDON: SATURDAY, MAY 1, 1897.

ABOUT twelve years ago M. GLENARD of Lyons drew attention to the fact that in many cases of neurasthenia, in which gastro-intestinal symptoms predominated, there could be found evidence of downward displacement of the stomach or colon. The condition which he termed gastroptosis or enteroptosis was attributed to an undue relaxation or flaccidity of the abdominal walls, so that the visceral contents of the abdomen lost that countervailing support which normally prevents their tendency to obey the law of gravity in the erect position of the body. A similar explanation was offered of the undue mobility and dislocation of the more solid viscera which occurred with varying frequency in those suffering from enteroptosis, adding perchance to the subjective troubles of this class of patients. Since then the recognition of enteroptosis and its allies has been generally accepted, but it is questionable whether the acceptance of the fact has been put to such practical service as was anticipated by M. GLENARD and those who welcomed his discovery.[1] There has just appeared an essay by Dr. C. SCHWARDT of Gotha bearing on this subject that seems to be worthy of notice, if only to illustrate the far-reaching speculations that it is possible to attach to "GLENARD'S disease," and it may be useful to give some account of this writer's views.[2] These amount to an insistance on the fact that enteroptosis is only one symptom out of many that arise in the course of neurasthenia, whilst in its turn it may lead to other conditions, such as auto-intoxication, that aggravate the primary disorder; the inference being that treatment directed to the relief of enteroptosis or other visceral displacements is of little avail, as the underlying causative element cannot be reached by such measures. For example, the rectification of a mobile kidney, though affording relief to the symptoms directly due to it, may have comparatively little effect in curing the patient of neurasthenia. To emphasise this point he gives the details of a case—one, he says, of some forty examples of enteroptosis that he met with in the first eight months of 1896 (surely a large experience). The patient, a young woman, twenty-five years of age, had suffered from headaches in childhood and adolescence; but an attack of influenza in March, 1895, was followed by dyspeptic troubles, which were further aggravated by a dysenteric attack in the following September. On that occasion the right kidney was found to be displaced and apparently fixed to the abdominal wall to the right of the umbilicus. In October she began to complain of feeling tired and to suffer from pseudo-membranous enteritis (colica mucosa of NOTHNAGEL), eventually taking to her bed on Oct. 27th and remaining continuously under treatment until February, 1896. The symptoms—of a character familiar to most physicians—now became very aggravated. Vomiting was severe and frequent, there were headache, insomnia, abdominal pains, palpitation, pulsating aorta, pain in deglutition, scanty urine, sometimes amounting to anuria, constipation, mental depression, great physical weakness, and emaciation. There was no fever; the pulse varied in rate and regularity as in volume. Examination showed a flaccid abdominal wall, which had become very thin, the stomach descending to the umbilicus, a displaced right kidney (which became mobile again after massage of the colon), and a retroflexed low-lying uterus. Enemata were followed by the discharge of membranous shreds and mucus. For a month treatment was directed to relieve the gastroptosis, and subsequently to keep the viscus quite at rest (by rectal feeding), but the administration of "intestinal antiseptics" to neutralise the auto-intoxication process was of no avail, and narcotics had to be given to produce sleep. The adoption after that time of hydro-therapeutic measures, such as packing, followed by cold sponging, produced a marked change, the vomiting ceasing and sleep soon being naturally procured. The same treatment being continued—with gradual addition of massage, gymnastics, &c.—led to an almost complete removal of subjective symptoms, to disappearance of the enteritis and to a great extent of the enteroptosis, and although the kidney was still mobile the uterus had regained its normal position. In other words, the treatment of the neurasthenia had cured the enteroptosis and the train of disorders attributable to auto-intoxication; and Dr. SCHWARDT urges that it shows that the condition of the skin—which is both an excretory and an important nerve-organ—is of prime importance in the production of many of the symptoms which occur in these neurasthenic states.

Enteroptosis, then, according to this view, is but an incident in the long train of conditions which afford a physical explanation of much of the misery which the neurasthenic, or the hysterical, or the hypochondriac subject experiences. The primary derangement is the "irritable weakness" of the nervous system, when the symptoms seem to be wholly functional—lack of energy, muscular weakness, wasting, and anæmia. Then comes the yielding of the abdominal wall, with diminution of intra-abdominal pressure and resulting tendency to gaseous and fluid accumulation in the stomach and intestines, the walls of which lose their tonicity and dilate, whilst there is also hindrance to circulation of blood and lymph and diminution in urinary and biliary secretions The contents of the intestine delayed in the dilated viscus ferment and produce auto-intoxication, and many of the symptoms are ascribable to retention or absorption into the blood of products that are not properly eliminated. Amongst the symptoms are dyspepsia, vomiting, headache, insomnia, tachycardia, anæmia, and muscular feebleness. Indeed, conditions are set up which increase the primary defect, added to which are the displacements of the solid viscera above referred to and defective action of the skin, which in itself increases the toxic agencies at work. The improvement due to acting on skin and muscles by hydro-therapeutic measures and massage is to be ascribed to the general effect on the

[1] See Revue de Médecine, 1887, p. 75.

[2] Beiträge zur Ætiologie, Symptomatologie, und Therapie der Krankheit Enteroptose - Basedow, Myxœdem - Sclerodermie. Jena: G. Fischer. 1897.

nervous system and to the elimination of the toxic materials in the blood as well as the increase of metabolism.

Dr. SCHWARDT, however, does not stop here; if he did perhaps there would not be much that is really novel in his thesis, for the efficacy of such measures as those indicated is one of the best accepted facts in therapeutics. He indulges in speculations which certainly have a novel aspect. At first sight it would not seem as if GRAVES'S (BASEDOW'S is the term which he uses) disease and enteroptosis have anything in common. But that is, indeed, his contention. He argues that as the condition of enteroptosis develops there is at first an effort on the part of many organs to compensate for the troubles it occasions, as evidenced by vomiting, diarrhœa, polyuria, intestinal muscular hypertrophy, and increased cutaneous activity. GRAVES'S disease—the heightened activity of the thyroid function—may be regarded as a similar compensating effort, called for to antagonise by the thyroid secretion the poisons which accumulate in the blood from the intestinal disturbance and renal inadequacy. He contrasts the conditions which prevail amongst the subjects of GRAVES'S disease with those present in the neurasthenic sufferers from enteroptosis, and thinks that they are wonderfully similar, whilst he goes further still and draws into the nexus of conditions assignable to like toxic agencies, scleroderma and myxœdema. It is difficult to follow his argument here—we may, perhaps, be pardoned for failing to comprehend it; for although myxœdema may colourably be supposed to be connected with states in which GRAVES'S disease plays a part, it is hard to see how scleroderma comes in unless it be regarded as a result of the cutaneous atony which, in his view, has much to do with neurasthenic symptoms. Yet he has at any rate given an opportunity for the discussion of some of the deeper problems of pathology in which the blood and nervous system take so large a share, and it may be that through some general conceptions of this kind clearer notions will be gained of the essential causes of derangements which are comprised under the term "functional."

IT is only natural that an individual should resent being told he is not performing his duties well. Very few persons are able to kiss the rod and to rise superior to adverse criticism of this sort, and public bodies do but resemble individuals in this respect when they resent the chastening hand of a departmental inquiry. The President of the Local Government Board would, perhaps, have been wiser to have remembered this platitude when he nominated only seven persons, albeit of great ability, to inquire into the existing systems for the maintenance and education of the 12,000 pauper children in the metropolitan area, in response to an agitation which has been going on for some years. He would, we think, have been well advised to have made this committee larger and less open to the criticism that it was not sufficiently representative. The criticisms on the constitution of the committee, published in a pamphlet before us by the guardians of the metropolis, who are, without doubt, the persons chiefly to blame if the education of pauper children be faulty, appear to us to be extremely feeble. The guardians object to two members of the committee because they have had no special experience of pauper schools, and to two others because they have had such experience. They object to Sir JOSHUA FITCH because he is an "educational expert (*sic*) with no special knowledge of Poor-law schools." Nevertheless, he apparently knew sufficient to point out to some of the witnesses that there had been no material addition to the Poor-law curriculum of instruction beyond reading, writing, and arithmetic since 1847. They object to Mr. EDWARD NETTLESHIP because he has only been connected with the schools on ophthalmic questions, which, by the way, is the point with regard to which of all others the guardians' management of these children appears to have most signally failed. Turning to their criticisms of the seventy-five witnesses, who, the guardians say, were "selected without reference to the boards of guardians," twelve were officials connected with schools and twenty-seven were guardians—that is to say, thirty-nine, or more than half, were representatives of the existing system, which stood, as it were upon its trial. The remaining thirty-six consisted of seven inspectors of the Local Government Board, twelve representatives from other educational establishments, eight from the outside public, five from the various boarding-out committees, and four from different emigration societies. The evidence collected, therefore, was of a very representative kind, and we will first inquire what evils this evidence reveals, and, secondly, what would seem to be the best remedies for them.

The evils existing in the present district schools, with which the evidence teems, come under two headings, medical and educational, with both of which, as a journal interested in the health, both of mind and body, of the future men and women of the nation, we are essentially concerned. It has long been known among ophthalmic surgeons, as pointed out by Dr. STEPHENSON, that the majority of young adults "coming for treatment for chronic ophthalmia at the London hospitals have formerly been inmates of the pauper schools"; and Mr. CHAPLIN stated in Parliament only last session, in reply to Dr. FARQUHARSON, that there were even at that time 6 per cent. of the children in the Poor-law schools suffering from ophthalmia, as compared with ½ per cent. under ordinary circumstances. To properly appreciate the causes of the prevalence of ophthalmia in pauper schools the blue-books of the Departmental Committee should be studied, but that it is due to the unhygienic condition of the schools is shown, among other important data, by the fact that a very much higher percentage of children were affected with granular lids amongst those who had resided in the schools for one year or longer than amongst those who had been in the schools for less than one year. Again, the mere fact that between 6 and 8 per cent. of pauper school children are prevented from going up for examination by reason of sickness is sufficient in itself to show that something is wrong in the administration of the schools. That overcrowding, general want of hygienic management and classification of children suffering from sore eyes, sore heads, and other contagious maladies constitute the causal factors in operation is abundantly evident from the various facts mentioned by the different witnesses. Not only does such overcrowding impair the health and eyesight of the children, but it also endangers their lives, as may be seen from the reports of both Dr. SYKES and the medical officer

of the Leavesden schools, who inquired into an outbreak of infectious sore-throat in those schools so recently as 1894. The evidence of Dr. BRIDGES, based on over twenty years' experience of the Poor-law schools, which is so amply confirmed by the testimony of others, including the somewhat reluctant testimony of some of the guardians themselves, is well worthy of the most careful perusal. The guardians, in their pamphlet of criticism, attempt to show that the evils referred to belong to "ancient history," but there are ample proofs in the report and evidence that the evils referred to still exist unremedied, though in some of the schools praiseworthy efforts at improvement have been made, and the mere appointment of the Departmental Committee has not been without a salutary effect in this direction. As a matter of fact, the most serious part of the indictment against the managers of the existing schools—that is, the guardians of the poor—seems to be that, although outbreaks of ophthalmia, ringworm, and other diseases traceable to unhygienic management have continually occurred, more has not been done during the past ten or fifteen years to place matters on a better footing, both as regards the overcrowding of the schools and the general want of classification and detail management, the establishment of probation or isolation wards to prevent the introduction of disease, and the like. In some of the schools, we repeat, steps of this kind have been taken, but in general there is a sad deficiency according to the evidence before the committee.

As regards the educational defects, with which we have to deal in a minor degree, but which are intimately associated with the medical and hygienic aspects, it was pointed out by many of the witnesses that the five hours' schooling of a child represents but a very small item in the formation of his character, and that sufficient supervision is not exercised over the children during the remaining nineteen hours, owing, in general terms, to a deficiency and inefficiency in the staff. It is also admitted, even by the guardians themselves, that in these great schools, containing sometimes 1700 scholars, a child loses all trace of his individuality; and that the general trend of the educational scheme is lacking in a technical aspect which not only fits a child hereafter to earn his own living but also by interesting a pupil in his work develops the mind far more than mere book-learning can ever do. The limits of space prevent our discussing on the present occasion the various remedies for these defects, but we propose to refer to this aspect of the question in an early issue.

THE Registrar-General's fifty-eighth annual report, which was published on Saturday last, contains, in addition to the ordinary routine concerning births, deaths, and marriages, certain matters of special medical interest which appear worthy of comment in THE LANCET. Year after year the Registrar-General has had to deplore the large number of deaths which are returned in the registers in such fashion as to be worthless for any statistical purpose, whether in relation to practical medicine or to public health. According to a table at page 12 of the present report we note that out of more than half-a-million deaths registered in 1895 nearly 26,000 were so returned that the causes of death could only be classified as unspecified or ill-defined. In another part of the report it is stated that of the half-million deaths recorded in 1895 as many as 92 per cent. were certified by medical men—of course, compulsorily and without fee. But for the registration of every one of these deaths a statutory fee has been paid to the registrars by the local boards of guardians. In no other country but our own, we opine, would 26,000 fees be paid annually out of public funds for information which has repeatedly been declared to be without scientific value.

For some years past the statistical department has been doing its best to remedy this state of things, and has issued annually thousands of inquiries to medical men respecting death certificates in cases where there was room for doubt whether the actual cause of death had been explicitly stated. That the medical profession have responded handsomely to the appeals from the General Register Office may be gathered from the fact that in the year 1895 there were received more than five thousand replies to medical inquiries, the majority of which contained information which has led to improvements in the classification of causes of death. In that year, as a result of their inquiries, 670 deaths were transferred from vague headings, such as tumour or disease of brain, liver, ovaries, uterus, &c., to cancer; 152 deaths which had been returned as due to pyæmia, peritonitis, pelvic cellulitis, &c., were transferred to puerperal fever; and 91 deaths, which had been ascribed in the first instance to tumour of the brain, were after inquiry referred to syphilis. It is believed, and with good reason, that in the course of years this system of inquiry has led to gradual diminution in the use of vague and unscientific terms in medical certificates of cause of death. In the course of the first half of the current decennium nearly 20,000 letters of inquiry were issued from the General Register Office, and in two-thirds of these cases the classification of causes of death has been altered and improved as the result of these inquiries. The following instances, quoted from the reports, are interesting as showing the variety of names under which serious and important diseases are sometimes disguised in the death certificates. "The terms atrophy of thyroid gland, cachexia, congenital disease, skin disease, constitutional disease, septic disease, pustules, sloughing soft palate, roseola, surgical fever, erythema, visceral degeneration and wasting, were found to have been used as euphemisms to denote syphilis. Abdominal disease, bowel disease, cachexia, disease of breast, disease of face, enlarged glands, exhaustion, organic disease, suppurating glands, and throat disease were used as synonyms for cancer; while alcoholism has been variously disguised as delirium, degeneration of organs, diseased viscera, dysphagia, inflammation of mucous membranes, mania, organic pseudo, general paralysis, toxic palsy, and toxic insanity." In a table at page 22 the result of this system of inquiry and subsequent correction is given for the years 1891-95. The figures show an addition of 8 per cent. to the total deaths from puerperal fever, of 5 per cent. to those from venereal diseases, of 3 per cent. to those from cancer, and of 2 per cent. to those caused by intemperance. On the other hand, they show a reduction of 65 per cent. from the deaths indefinitely referred to tumour, of 46 per cent. from those referred to

dropsy, of 39 per cent. from those referred to pyæmia, and of 32 per cent. from those referred to hæmorrhage.

Of the half million deaths recorded in England and Wales in 1895, as many as 13,000 or 2·3 per cent., were uncertified. These uncertified deaths include the deaths of infants who had been attended only by midwives, and those who had been attended by unregistered medical practitioners, as well as the deaths of persons who had received no medical attendance whatever. The proportion of uncertified deaths differs widely at the various ages. Thus, in the year 1895, of the total uncertified deaths, 4390, or just one-third, were deaths of infants under three months of age, and these 4390 deaths were 6·27 per cent., or about one in sixteen of all the deaths under three months old. The proportion of uncertified deaths falls abruptly to 2·49 per cent. at three months and under one year of age, and afterwards more steadily to a minimum of less than 1 per cent. at ages from fifteen to thirty-five years, after which the proportion gradually rises as age advances. In the metropolis and in Middlesex less than 2½ per cent. of the deaths of infants under three months old were uncertified, but in eight counties the proportions were over 10 per cent.; whilst in Herefordshire the proportion was 20 per cent. It may be remarked that the proportion of illegitimate to total deaths is high in most of the counties possessing high ratios of uncertified infantile deaths, but in almost every case the mortality of infants under one year of age, compared with the total births, is below that prevailing throughout England and Wales.

WE publish in another column a petition to His Royal Highness the PRINCE OF WALES from members of the profession resident in London and others urging the formation at an early date of a Central Hospital Board, to include both lay and medical representatives of the medical charities of London. The energy of His Royal Highness of late in forwarding the cause of hospitals—as in the case of Guy's Hospital, and still more in the matter of the Fund established to commemorate the Diamond Jubilee of Her Gracious Majesty QUEEN VICTORIA—justifies all true friends of hospitals in believing that he designs, not only their financial relief and prosperity, but emancipation from those faults of administration which impair their efficiency as a refuge for the poor in their distress and which alienate the sympathy of the charitable, by whom they are mainly supported. Indeed, it is not too much to say that if the PRINCE OF WALES can use his great influence to effect a real improvement in this respect he will do more for hospitals indirectly than directly and will secure the lasting gratitude of those who best understand the uses and abuses of the hospital system. Those members of the profession who sign the petition urging the PRINCE to sanction the creation of such a Central Board have much to encourage them to hope for success. Nearly every inquiry into the subject of the administration of London hospitals has resulted in a similar suggestion. The committee of the House of Lords, which went into the subject so minutely, made this a principal proposal for giving system and principle to a set of institutions which for some years have been posing rather as rivals and competitors in the work of charity than as coöperators. But the suggestion chiefly in evidence is that of the PRINCE'S original letter, in which he so ably set forth the cause of hospitals and their claims to a more wide and extensive support than they have ever received. One paragraph of His Royal Highness's letter to the public may well be reproduced.

"I am aware that the task of distributing the funds when collected will not be without its difficulties. It may be desirable in the future to seek the assistance of representatives chosen by the hospitals, but for the first year we shall rely upon the coöperation of the Distribution Committee of the Hospital Sunday Fund."

This paragraph is of the greatest importance. It shows that the PRINCE, with that common sense which is so admirable a feature of his public work, realises that it is not so difficult, after all, to get money as to make a good use of it, and that, indeed, the way to get it in abundance is to use it well—in other words, to distribute it upon principles which commend themselves to those who are able to give. Clearly the hospitals will have to be represented on this Board, and the representation of the hospitals will not be complete without a representation of the medical staffs, by which alone the real ultimate work of the hospitals is done. The medical staffs of the hospitals have hitherto been very modest and taciturn in the discharge of their duties. But it is generally admitted that the time has come when, in their own defence and in that of other members of the profession, as well as in the interest of hospitals themselves, they must assert their claim to be considered and consulted in the burning questions of hospital administration. We may be sure that the PRINC OF WALES will be ready to admit that the enormous and gratuitous services of the medical profession in hospitals entitle them to be included in that representation of hospitals which he foreshadowed in his historical letter. We may hope, too, that His Royal Highness will go still further and admit that the medical profession as such has a claim to be represented among those to whose assistance he looks for dealing with the "difficulties" of distribution in the future. We hear much of the medical charity of hospitals, but we hear little of the medical charity which is administered elsewhere than in hospitals night and day by the rank and file of the medical profession, and which entitles them to be represented on any Central Board meant to regulate the action and the charity of hospitals. We assume, too, that the public, or the charitable section of it, will be in some way called in to the assistance of the PRINCE and his colleagues in this difficult matter of distribution. The petitioners do well to approach His Royal Highness on this branch of the subject. The time is opportune for doing so, and we very cordially endorse their petition. It may be said that the PRINCE might continue to look to the Hospital Sunday Fund, as he proposes to do "for the first year." We are glad that the PRINCE has so far recognised the claims of the Hospital Sunda Fund or of its Distribution Committee to be regarded in this question of distribution of the Commemoration Fund but unless the administrators of the Hospital Sund Fund show some larger sense of responsibility than they have yet displayed, and some keener perception of the dangers of indiscriminate and pauperising charity, w

cannot admit their claim to be considered a Central Board in the sense in which the petitioners use the word or the members of the Committee of the House of Lords intended.

It only remains for us to assure His Royal Highness that the members of the medical profession generally, both in London and the provinces, concur in the prayers of the petitioners. None recognise more cheerfully than medical men the enormous benefits conferred by hospitals, and none are more anxious that they should be well distributed and dissociated from all evils of administration, owing to which those needy ones for whom these benefits were originally intended are passed over, and those who neither require nor deserve them are demoralised.

Annotations.

"Ne quid nimis."

THE PROFESSION IN FICTION.

LARGE and unusual as are their opportunities of reading character and witnessing its response to the ordeal of circumstance, medical men have consistently shrunk from giving their experiences to the world. Their interest is primarily their patient's physical and mental well-being; the facts which come before them in diagnosis and treatment—often, indeed, intensely dramatic, always of value to the student of human nature—must remain undisclosed, as sacrosanct as the revelations of the confessional, in compliance with an obligation embodied for all time in the oath of Hippocrates. The literary layman, however, is not so bound; and in the world of fiction may reproduce professional facts and characteristics leading up to dramatic *dénoûment*, with a freedom only restricted by the laws of philanthropy and good taste. In these days, when the novel is largely usurping the place once monopolised by the pulpit, and all but abandoned (in spite of Addison's suggestion) by the stage, the field of medical experience is more and more cultivated by the writer of fiction, with a success, moreover, measured by the degree in which the individual has been at pains to master the human organisation and to watch its behaviour when face to face with the realities of disease and death. We could signalise more than one successful contribution to this form of fictitious art, but will confine ourselves to its most recent as well as (to our thinking) its most powerful example—"The Dowager's Determination," by Mrs. Severne. The story turns on the decay, intellectual and moral, of a patrician house, the later heads of which have, by an ill-assorted inter-marriage, tainted it with mental disease betrayed in the lives, generally short, of its successive heirs. The dowager, a powerfully-drawn character, sets herself to force back this degenerative current, and, with equal skill and cynicism, effects the marriage of her grandson, Lord Raymore, with a typically prepossessing English girl, Lilian Jardine, the local rector's niece, between whom and the young practitioner of the neighbourhood, Stephen Brand, there had for some time been developing relations more than friendly. Lord Raymore has already shown signs of insanity—signs professionally known to Dr. Brand, but not known by the girl and all but ignored by her uncle, the social ambition of both being proof against any misgiving as to the sacrifice they are unwittingly courting by acquiescence in the dowager's "determination." The marriage takes place, and then begins a series of incidents, each more dramatic than the other, as husband and wife, like the hero of the "Iron Shroud," find their doom narrowing daily in upon them with a "necessity" (ἀνάγκη) as inexorable as that of the Æschylean Trilogy. Mrs. Severne has read widely and deeply in the literature of mental disease, and for a lay writer steers commendably clear of the rocks on which so many literary voyagers in professional waters have already made shipwreck. Lord Raymore is the central figure, but the "hero" in every sense is the young medical man, whose conduct from first to last is that of a chivalrous gentleman as well as a master in the healing art. It would be ungracious to anticipate the reader's interest by forestalling the course and culmination of the incidents, but we may note in passing the felicity with which the local colour of the scenes of suffering is given—"the ears strained to catch the closing of a distant door or the muffled sounds which, in some peculiar way, tell of sickness in a house." Over and above its success in portraying the profession in real life the novel has a special value in powerfully exposing the sin, the actual "crime," as John Stuart Mill called it of promoting marriages regardless of all but social or financial considerations. Mrs. Severne drives her moral home with force and effect, and the tale that gives point to it might be varied almost indefinitely by reading for "madness" one or other of the scarcely less sombre maladies which convert marriage from a blessing into a curse.

THE DECLINE OF THE SCOTTISH UNIVERSITIES.

THERE is no doubt that, tested by the numbers of matriculated students, the Scottish universities have in all faculties been of late years registering a steady decline. The fact is sought to be explained in diverse ways. In the arts faculty particularly the standard of proficiency on admission to the curriculum has been too low and the instruction given has savoured more of the upper form in schools than of the university, so that for the higher education the more aspiring youth prefer Oxford and Cambridge to Edinburgh or Aberdeen. Another reason for the diminished numbers in the same faculty is the poverty of the career open to the graduate, the teaching profession being almost the only *métier* (and that an underpaid one) in which his qualifications are marketable. Then, again, the Scottish M.A. has never carried with it the same guarantee of thoroughness and academic status implied by that of Cambridge or Oxford. True, the degree attests an acquaintance—it can hardly be called a familiarity—with a greater variety of subjects, but extent of superficies has been gained at the expense of depth and by ignoring the *prima cura* of all university culture, which, according to Froude, is that of teaching the *alumnus* "to know what knowledge of a subject means." The entrance examinations, moreover, which by their laxity ought apparently to attract the freshman in greater force, really repel the increasing number of those who demand what a university ought to give—association with well-trained students competing in generous rivalry for qualifications and honours worth the contest. Yet another cause of the Scottish decline is the excessive number of "seats of learning" north of the Tweed, two at most being all the North Briton requires if his needs are measured by population and the prizes in life within his reach. Again, the lecture system—so traditional a favourite in Scotland—is an effete survival from the Middle Ages, quite necessary, no doubt, when the art of printing was still young, but preposterously overdone, particularly in medicine, to the weariness of the student and the waste of his precious time. "Eyes first, hands next, ears last," the memorable maxim of that excellent teacher, the late Sir G. M. Humphry of Cambridge, is now becoming the practice in all schools, especially in those where applied science and the qualifications required for the noblest of "work-a-day professions" are demanded and furnished. The severe competition of the provincial universities in England, which are

very flourishing, has not received due attention from the authorities of the Scottish Universities. One final reason which, strange to say, has escaped the Scottish mind in accounting for the university decadence is the undoubted fact that for the last fifty years the competition of English and Irish schools has become more successful mainly owing to the reinforcement of their teachers and examiners from their northern sister. The academic Saturn north of the Tweed, like his antique prototype, is being devoured by his own progeny. For this Scotland has her own lack of professional outlets to thank. The best of her sons are precisely those whom she can least powerfully attract to her own service. Her whole academic and professional life is at present being painfully reminded of its defects under latter-day competition and requirements, but we can hardly think her so unequal to her better self as to suppose that having discovered the kind and degree of the bane she will be unable to devise the appropriate antidote.

ALLEGED NEGLECT OF A SICK PAUPER.

THE Woodbridge board of guardians have been discussing a complaint against one of their medical officers, Mr. Edwardes-Ker, for delay in visiting and in sending medicine to David Gardner. A letter alleged to have been sent by the relieving officer does not seem to have reached Mr. Edwardes-Ker. There were, besides, other discrepancies of statement. The guardians very properly appointed a committee to find out the facts of the case. We hope the guardians will make their investigation complete, and consider the means whereby medical officers are or can be informed in proper time of the illness of patients or can send to them medicines with sufficient despatch. Without judging the medical officer or his accusers, it seems to us that after the defects in these means have been considered there will be little blame attaching to Mr. Edwardes-Ker.

"A NOTEWORTHY INQUEST."

OUR attention has been called to a paragraph in the *Watford and West Herts Post* commenting on the inquest, which we reported in our issue of last week, held at Bushey by Dr. Lovell Drage on a patient who died in child-birth while being attended by a midwife, Miss Alice Mary Jennings. Our readers will remember that the case was one of severe accidental hæmorrhage, and that, according to Miss Jennings's own evidence, three or four quarts of blood had been lost before she arrived, though there was not much bleeding going on when she first saw the case, which was at 7.45 A.M. The head was presenting; she plugged the os lightly with a soft silk handkerchief, and in about an hour afterwards, when the os was dilated, she ruptured the membranes, and brought down first one foot and afterwards the other—in other words, performed podalic version. The child was born at 12.30 mid-day. The patient died about 4.30 P.M. the same day. The post-mortem examination showed that the cause of death was pulmonary embolism and that the case had not been one of placenta prævia, as the midwife had supposed, but that the placenta had been normally situated. The jury found that the midwife was to blame, among other things, for not calling in a medical man in the first instance as soon as she saw the serious nature of the case. It appears from the paragraph in our contemporary above referred to that notice has been given that "Miss Jennings is and will be at perfect liberty to fulfil all existing and future engagements, even if the Obstetrical Society should see fit to recall her diploma." Probably so far as the legal aspect of the matter goes this is so. If those who had engaged her previously, being now aware of the case that formed the subject of the inquest, are still willing to be attended by her they are at liberty to be so attended. The comments which our contemporary makes on the matter seem, however, to call for some notice. In the following passage, for instance, our contemporary misses the point altogether: "Nothing has been done or left undone that could have contributed to the death of the deceased, only a rule of a society has been broken because nothing occurred to show that there was any necessity to comply with it. General sympathy will therefore be with Miss Jennings, who can scarcely be blamed when a doctor would be free." It is not the question whether Miss Jennings adopted the best treatment in this particular instance or not. The point is that in all serious cases—and there could hardly be a more serious one than a case where three or four quarts of blood are lost at the onset of labour—it is the midwife's duty to call in a qualified medical practitioner without delay. It is obvious that a properly qualified member of the profession must necessarily, as a general rule, be a better judge of what should be done in a serious case than a woman whose education is only adapted to fit her to attend ordinary straightforward cases efficiently, and to know in what cases to send for skilled assistance. As Miss Jennings admitted, the case in question was one of those in which she was taught to send for a medical man immediately, and it is because she failed to do so that she was censured.

INSANE JOURNALISTS.

"IN several of the English lunatic asylums," says a writer in a French medical periodical, "the management has had the happy and original idea of introducing journalism amongst the inmates as a curative measure, and according to the reports furnished annually the innovation has been attended with the best effects. Some of the physicians even declare that in many instances they have been indebted to the lucubrations of their patients for valuable hints as to the best way of treating them. One demented person, for example, obstinately refused to take any food, and with equally invincible stubbornness declined to furnish any reason for his refusal. There was no difficulty, however, in persuading him to commit his thoughts to paper, for apparently the *cacoëthes scribendi* is quite as powerful amongst people who have lost their wits as it is amongst those who have contrived to preserve them, and at once this individual's peculiar delusion was made manifest. This is what the hitherto intractable monomaniac wrote: 'I desire to be buried as quickly as possible. It is a monstrous scandal that I should be compelled to drag about all over this house a dead and putrefying corpse.' As soon as the bent of the patient's weak-mindedness was thus brought to light he received appropriate treatment, and is said to have eventually recovered." The French commentator selects *The New Moon*, which he justly regards as very appropriately named, for especial commendation, but he omits to say where this journalistic luminary rises. He quotes from it the following passage, which shows, at all events, that a sense of humour is compatible with lunacy; "Wanted for a throne, which it would be indiscreet to specify at present, an Emperor or King who is thoroughly conversant with the business. It is quite useless for the Czar of Russia to reply to this advertisement." We may inform our contemporary that journalism by lunatics for lunatics is by no means a novelty in our establishments for the insane. Writing in 1857 Dr. Andrew Wynter said with reference to Murray's Royal Asylum at Perth: "Not content with these efforts, they seem to think that they are nothing unless critical, and accordingly they have set up a journal in which they review their own performances. The first number of *Excelsior* is now before us, in which we find poetry, news, and criticisms

on music, and contemporary literature; and he who reads with the idea of finding anything odd in this production will most certainly be mistaken, for no one could divine that there was a 'bee in the bonnet' of printer, publisher, and contributor." Anyone interested in the history of lunacy and its treatment in modern times will find much curious information in Dr. Andrew Wynter's article. It was published, together with several other papers by the same author, by Mr. Robert Hardwicke of Piccadilly, in a volume called "Curiosities of Civilisation"—having appeared previously in the *Quarterly Review*.

IDIOPATHIC OSTEOPSATHYROSIS (FRAGILITAS OSSIUM) IN CHILDHOOD.

EXCEPT in old persons fragilitas ossium is a very rare condition. Dr. Griffith relates the following case.[1] A male child was born on June 11th, 1893, after a labour which was neither protracted nor severe. Nothing was noticed until the second day, when it was found that the right femur was fractured. On further examination under an anæsthetic the left was also found fractured at its neck. Both limbs were placed in long splints with silicate of soda bandages. In three weeks union was complete. At the age of three months the right humerus and femur were broken, apparently during a medical examination, which was carried out with due gentleness. Both bones united well. On March 1st, 1894, the child fell forward, but not out of his chair, and sustained fracture of the right femur near the hip. On Sept. 11th, 1894, he broke his left thigh again. Union took place, but two weeks afterwards he broke the bone again. In the spring of 1895 he fell out of his hammock and fractured both femurs. They united well, but three months later the right was again broken. Besides these fractures there were others undiscovered. At times he seemed to have pain in various parts of the body, supposed to be rheumatic; but this was evidently due to fractures, as there were at least one fracture of the left thigh and one of the right forearm found afterwards with angular union. On several occasions he broke his ribs. In all he certainly had twelve fractures, and possibly eighteen. Union was always prompt. No hereditary influence could be traced; both parents and grandparents were unusually healthy. The child was suckled until the age of five months, then fed with cow's milk, and later with food suitable for his age. The general health and nutrition were good. At the age of two and a half years he was a plump, well-developed, healthy-looking boy. He was carried constantly on a stretcher lest sittting him up might produce fracture. The head was decidedly larger than normal. The frontal bones had distinct bosses, suggesting rickets, and the back of the head was flattened, doubtless from the long-continued pressure of an enforced position. There was no beading of ribs, enlargement of epiphyses, on other evidence of rickets. The right arm had a bad angular deformity above the wrist, and the left thigh was similary deformed with eversion of the foot. Curvature of the bones in any part could not be detected. The muscles of the calves were well developed, but the thighs were flabby. The arms were well developed. Advice to the effect that he should be allowed to sit up, to give his muscles the needed exercise, was given. In four months he had greatly improved. He could turn himself over and move his legs freely, and sit upright in the lap. The muscles were evidently gaining strength rapidly. There had been no more fractures. His head, however, seemed even larger, but was not in appearance either hydrocephalic or rickety. After an extensive search through the literature of idiopathic osteopsathyrosis in children, the writer could find but few cases in which the brittleness was greater than, or even equal to, that in this case. He collected fifty-seven cases from which he draws the following conclusions. As to the etiology, inheritance is a marked factor. In eleven it was direct—that is, the disease had appeared in either parents or grand-parents and perhaps in several of the children. In seven others there was a family predisposition without direct inheritance—that is, more than one child were affected, and perhaps some other relatives. There were twenty-four cases in which no family predisposition was recorded. The remaining fifteen are classed as doubtful cases because rickets or other disease was present. Amongst these he places cases resembling the so-called fœtal rickets, and others in which intra-uterine fractures occurred from insufficient ossification. Males were more liable than females in the proportion of forty-seven to nineteen. The disease usually began very early in life, sometimes before birth; in a few as growth advanced. Syphilis and rickets did not appear to have any influence in the production of this strange fragility. Cases in which fracture was secondary to gumma are of course excluded. Where the disease occurs in the subject of rickets the writer considers it to be a case of co-existence and not causation. For in rickets there is a tendency to bend and to the production of green stick fractures; in osteopsathyrosis, on the contrary, the condition is one of extreme brittleness, without any tendency to bend. Osteomalacia shows a similar difference. So-called fœtal rickets is closely allied to osteopsathyrosis, and provisionally placed in this category. Nothing definite can be said of the pathology as the reports of examinations of the bones by different writers are very contradictory. A marked feature of the affection is that union of the fractures is prompt. Pain never precedes fracture as in osteomalacia. The long bones of the extremities, especially the lower, the clavicle, and the ribs, are most frequently broken. In no case was there a fracture of the vertebræ or pelvis. Fractures are entirely independent of the union of diaphysis and epiphysis. In making a diagnosis the presence of any disease primary to the fractures must be excluded—viz., syphilis, nervous disease, osteitis, tumours, &c. Rickets presents many features of its own which enable it to be distinguished. It is questionable if osteomalacia is ever present at a very early age, and it much more resembles rickets than this disease. The prognosis as a rule is unfavourable. The duration of life does not seem to be affected, but the tendency to fracture is apt to continue unabated. In a few, however, it was outgrown. The treatment consists in the administration of alteratives, the maintenance of the general health, and the protection of the limbs. But the muscles must not be allowed to waste for want of use. Union of the fractures should be secured in proper position.

[1] American Journal of the Medical Sciences, April, 1897.

ACCIDENT OR OUTRAGE?

WE fear that the evidence bearing upon the mysterious occurrence of a disastrous explosion in a train at Aldersgate-street Station on Monday night is narrowing down in favour of a dastardly and cowardly miscreant being at large. The theory that the disaster was due to the explosion of the cylinder beneath the carriage containing gas for illuminating purposes cannot be seriously entertained, since on examination the cylinder did not prove to be rent by bursting, but, on the contrary, was indented and intact. If, again, as some have conjectured, it was a portable cylinder of compressed gas in the carriage, where are the remnants? From the accounts of the nature of the explosion given by several witnesses there seems little doubt that the explosive was of the high order and belonged to the "nitro" group. A close examination of the wrecked carriage may perhaps lead to the identification of chemical residues which will enable the experts to say with

some degree of certainty what the explosive was. Even, however, assuming that this becomes known, it will still remain a mystery as to whether the explosive was left designedly or accidentally in the carriage. The results were serious enough, and have, unfortunately, led to the death of one of the injured; but worse might have ensued if at that moment trains had been coming and going with the rapidity of a busier time of the day. We sincerely hope that the matter will not prove to be beyond elucidation, and, if the evidence points to outrage, that the scoundrel who perpetrated it may be tracked and dealt with as such a scoundrel deserves.

THE INTERNATIONAL MEDICAL CONGRESS AT MOSCOW.

WE desire to impress upon the attention of our readers the statement made in our columns last week—namely, that the Russian railways have most generously decided to grant free passes on the railways to members of the Congress. This piece of courtesy will greatly reduce the expense of a visit to Moscow, and we hope will induce many members of the profession to attend the Congress who might otherwise have been prevented on the score of expense. It is an opportunity not to be lightly set aside, for, apart from the scientific aspect of the Congress, Moscow is one of the most interesting towns in Europe, and, moreover, unknown to the majority of Englishmen.

THE PLAGUE IN INDIA.

WE are extremely glad to recognise that the latest reports from Bombay on this subject are much more satisfactory. There is a still further decline of the epidemic. The stringent measures for dealing with the disease under the powers of the Epidemic Diseases Act, which have now been enforced for some time, have apparently been justified by their success. We trust, however, that the Indian authorities will not rest satisfied with applying measures for limiting contagion, but that the occurrence of this epidemic will lead them to consider what should be done in the way of sanitary and public health improvements to guard against similar occurrences in the future. These cost money, no doubt, but they do not cost so much as outbreaks of epidemic plague, and they are not only the best safeguards we possess against that disease, but against all other epidemic diseases that may occur.

"PRIMARY CANCER OF THE NASO-PHARYNX CURED BY INJECTIONS OF ALCOHOL."

AN interesting case under the above heading is reported in the *New York Medical Record* of April 17th by Dr. Edwin J. Kuh. The patient was thirty-seven years of age and had suffered from "nose-bleed" and nasal obstruction accompanied by viscid discharges since childhood. The growth was removed by operation, but in less than a month the post-nasal space was again almost completely filled by a soft bleeding mass. Sections of the tumour which had been removed by operation showed the characters of epithelial cancer, the diagnosis being confirmed by Professor Senn. Further surgical interference being considered too hazardous the neoplasm was first injected with unfiltered erysipelas-prodigiosus toxins, from five to twelve minims being employed daily. This treatment proving unsuccessful it was decided to inject alcohol into the growth. At first three minims of absolute alcohol were used, this dose being rapidly increased to thirty minims. "The reduction in size began after the seventh injection, and after the eleventh but few remnants of the growth remained. After a dozen more injections the needle would not penetrate into tissues capable of retaining the alcohol, and after a few additional attempts, at intervals of a week or longer, they were discontinued." Some two ounces of iodide of potassium were given during the later injections, but Dr. Kuh contends that the drug stood in no causal relation to the disappearance of the growth. In February, 1897, four months after the cessation of treatment, the naso-pharynx was found, both by inspection and palpation, to be entirely free from growth.

HOSPITAL REFORM.

WRITING to the *Birmingham Daily Post*, Mr. Lawson Tait says that "we [the profession] are entirely responsible for hospitals, and for all their faults as well as their merits." He maintains that the medical officers of the Birmingham Hospital could make an end of the trouble in a month. As a temporary expedient he suggests that they should assign 30 per cent. of their income accruing from hospital position for the assistance of their "struggling extra-mural brethren." We are sure the "struggling brethren" would decline any such remedy. All they ask from their hospital colleagues is to use their influence to restrict the benefits of hospital treatment to those who need it and cannot afford to pay for it. Neither is it of any use to lay the whole blame on hospital honorary officers. The committees and governors of hospitals are equal or greater culprits. Our contemporary's pages are devoted to a discussion of the whole question of hospital abuse and contain many letters which we have not space to notice at present.

THE ATTEMPT ON KING HUMBERT'S LIFE.

FOR the second time within nineteen years an attempt has been made on the life of the King of Italy. The first—that of Passanante—was political in its motive; the second—that of Acciarito—was prompted by misery. This latter provocative of crime is, unhappily, an increasing one in the Italian kingdom. Hardness of living, with all its attendant evils, becomes year by year a more terrible reality within its borders till it inspires excesses which the law is powerless to prevent. To avoid death by starvation the unemployed artisan will qualify for the prison, where at least he will be fed, with a roof over him and a bed to lie on. "I had nothing to eat and had to do something," was the sullen, cynical answer of Acciarito to his interrogators. Surely there must be "something rotten in the state" where would-be Acciaritos may be counted by thousands. To pose as a great Power, to maintain a colossal standing army and a formidable fleet, to attempt colonial expansion, and to carry its "sphere of influence" to the Antipodes may be justifiable in a nation rich in natural resources and strong in character and tradition; but it is at least premature in one which has barely passed its majority, whose resources, abundant by nature, require all its energies to develop, and to whom self-government, by its very unfamiliarity, is infinitely more expensive than to its maturer and more skilfully regulated neighbours. Italy must alter her tack and trim her sails to other winds if she is to escape shipwreck, aggravated by mutiny on board. The recent general elections have given her rulers a hint in that sense which they cannot ignore. In every constituency—nowhere more than in Turin, the cradle of her monarchy, Milan the centre of her enterprise, and Florence the seat of her culture—the Socialist vote was multiplied beyond all European or Transatlantic precedent. True, that vote was given in favour of candidates exceptionally conspicuous for enlightenment, public spirit, and familiarity with the nation's wants. The majority of those whom it returned were medical men o holders of university chairs, whose one aim in entering Parliament was to ameliorate the masses and reduce that hardness of living which is the fruitful parent of crime. These men are society's best friends, having no-

sympathy with anarchy or political chaos, but profoundly interested in the conditions that underlie healthy evolution. From them, in the last resort, neither Crown nor Court has anything to fear—the constitutional monarch being, in their eyes, "one who reigns but does not govern," and constitutional monarchy itself a "republic in which the President is hereditary." All they plead for is education on the lines dictated by hygiene; industrial or agricultural employment under the surveillance of sanitary law; the provision of healthy homes and unadulterated food; the reclamation of lands run to waste; the reafforesting of denuded hillsides and the regulation of watercourses running riot in floods shall—among similar reforms—receive the practical attention of the legislature. This is a "crusade," or rather, in the term coined by John Stuart Mill, a "civilisade," in which the paladins are the medical men whose headquarters are the universities, particularly the Subalpine School. Loyal in a sense unknown to the political agitator or place-hunter these men are labouring for reforms which make government of any kind—monarchical or republican—possible; government "broad-based upon the people's will"—a people, moreover, healthy, happy, and contented. Deplorable as was the attempt on King Humbert it will have the effect of driving home the lesson taught by the recent elections—to wit, that there is nothing so fatal to national stability of any kind than a people denaturalised by hardship, insanitation, and the predominance of conditions that make life not worth living. We are glad to see Italy's leading organs commenting in this strain on the recent incident. "L'Italia abbonda di molti miserabili, di molti infelici. È la sua debolezza ed è la forza dei partiti estrèmi" (Italy abounds with many miserable, many unhappy ones. It is her source of weakness, as it is a source of strength for her extreme parties). Let us hope she will take the lesson to heart, not rejecting the warnings of the socialist Sibyl till they are drowned in the crash they had tried vainly to avert.

FOOD-SUPPLY IN PEACE AND WAR.

THERE are peculiar difficulties connected with that section of legislative administration which attempts to insure for the public a pure food-supply. The problem is to be fair to both purchaser and seller. We have always urged that the law should provide that the purchaser be supplied with the exact article he requires. Considerable impetus towards attaining this end would be derived if the suggestions of the Agricultural Guild, of 17, Victoria-street, Westminster, were adopted. This Guild proposes to hold "an important conference" on May 3rd at the Westminster Palace Hotel at 3 P.M. Amongst the subjects to be discussed are the advocation by legal enactment of the sale of (1) English, (2) foreign, and (3) adulterated food products in *separate and distinct shops*. What an admirable idea. The public would then know which shop to go to for an English, foreign, pure, or adulterated article of food. The second subject for discussion is "the serious deterioration in the stamina of English men and women owing to the consumption of non-indigenous and deleterious food." We are not prepared to admit that there is any deterioration worthy of anxious consideration. But the third and last subject for discussion is as admirable in principle as the first. It is "to consider the imperative necessity, on hygienic and economic grounds, for the removal of the milling and baking industries from the slums of London to the open country." The primary aim of the Guild is to realise the admissions of the late Earl of Derby, that the lands of the United Kingdom, which are, on the whole, naturally fertile, were capable of yielding by intelligent tillages sufficient produce to feed our increasing population for hundreds of years to come. Why, then, should we incur the danger, urges the Guild, of depending on foreign countries for our food-supply in times of both peace and war? Happy Guild, with such noble aims and ambitions in view; but have they reckoned with the economics and other equally important aspects of this vast question?

THE SERUM DIAGNOSIS OF TYPHOID FEVER.

THE Corporation of Eccles, in Lancashire, is to be commended for its enlightened policy in providing facilities for the employment of serum diagnosis in suspected cases of typhoid fever occurring in the borough. Work of this kind can only be undertaken by a professed bacteriologist, for fresh cultures of typhoid bacilli must always be at hand for mixing with samples of blood from the patients. It is, therefore, very satisfactory to find that Dr. J. H. Crocker, the medical officer of health, has informed all the practitioners in Eccles that such samples will be examined for them by Professor Delépine of Owens College, Manchester, and that the results will as a rule be made known the day after the receipt of the specimen. The general arrangements will be similar to those which answered so well at Eccles in the case of diphtheria. Pipettes for the transmission of the samples are kept at the town hall, the expense of the bacteriological examination is defrayed by the corporation, and practitioners are recommended to avail themselves of this diagnostic aid at the earliest possible period of the illness. If the case is notified as typhoid fever the fee of 2*s.* 6*d.* will be paid, even if the bacteriological examination gives a negative result. This new development of practical bacteriology promises to be very interesting.

THE ROYAL SURREY COUNTY HOSPITAL AND HOME VISITS.

THE governors of the Royal Surrey County Hospital have, at a special court, adopted the recommendation of the committee to substitute for Rule 90, concerning home visits, the following words: "Out-patients residing within the borough of Guildford and too ill to attend the hospital may be visited at their own homes on sending an out-patient letter of recommendation from a subscriber and also a home-visit ticket. Two hundred of such tickets, available for the then ensuing year, shall be issued to a committee of the town of Guildford on the payment of a sum of £50 for such year, and so on from year to year until the arrangement be terminated either by the governors or by the said committee." We have already expressed our doubts about this recommendation. It appears that the practice of seeing patients at their homes is not new in the system of this hospital. What is new is that the town, in its Diamond Jubilee gratitude, is to give £50 to the infirmary for 200 tickets. This bargain is not very complimentary either to the medical profession or to the Diamond Jubilee. Hospitals are meant for the treatment of in-patients. To say that people to the number of 200 who are too ill to be accommodated in the hospital are to be treated at home by the junior house surgeon for the consideration of £50 is not to offer them hospital advantages. Hospitals should restrict themselves to their own work and leave outside work to be done by arrangement with medical men acting privately or through a provident dispensary. One speaker defended the arrangement on the ground that cottage hospitals were being multiplied so much as to endanger the support of the county hospital, and that the managers must do more to draw closer the connexion which had always existed between the town and the hospital. We observe, with some surprise, that the medical speakers supported the proposal. Dr. Russell thought that 10*s.* would represent the market price of the visits and medicines to each patient. Be

it remembered that they are ill—patients too ill to attend the hospital—presumably, therefore, in need of much attention and skill. Surely Dr. Russell does not properly hold up either the value of medical service or the standard of attention due to those very ill.

THE LATE MR. L. P. CASELLA.

MR. LOUIS PASCAL CASELLA, who died at Highgate on April 23rd, aged eighty-six years, will long be remembered as the author of many important improvements in scientific apparatus of various kinds, especially in thermometers and in the instruments used by meteorologists. In particular he did much for the clinical thermometer. Sir William Aitken, of the Army Medical School, has perhaps the best claim to be regarded as the pioneer of medical thermometry in this country, and Mr. Casella has the credit of being the first to construct a registering clinical thermometer. The present serviceable pattern was slowly developed. Many middle-aged practitioners will recollect the time when there was no self-registering index and when the stem was about ten inches long, as it was necessary to take the reading before the instrument was removed from the axilla. Mr. Casella belonged to an Italian family, but he was born in Scotland and came to London when a youth.

THE PROFESSION OF MEDICINE A DEPARTMENT OF THE STATE.

OUR Australian Correspondent writes: — The retiring president of the Queensland Branch of the British Medical Association, the Hon. C. F. Marks, M.D.R.U.I., proposed in his address that the medical care of the people should be part of a Public Health Department of the State. He suggested that a medical service for the whole colony be established, modelled somewhat on the lines of the Army Medical Service. The country should be divided into suitable districts having a senior and two junior men to each, with relieving officers and inspectors; salaries to begin at not less than £300 a year, and promotion to be by years of service or for distinguished service on ballot of all the medical officers. Dr. Marks assumes that there are about two hundred practitioners in Queensland, with, roughly, an average income of £1000 a year, and the population is about 500,000. A sum of 8*s.* per head of population raised by Government taxation would give ample funds for the scheme, allowing for fair superannuation allowances. Such a scheme, he maintained, was the only remedy for the present abuses of lodges, dispensaries, and hospitals. At the annual conference of the Political Labour League of New South Wales on Jan. 26th it was moved and carried, "That the care of the public health being among the first duties of the State, the practice of medicine should be a national service, the country to be divided into medical districts in charge of Government medical officers, whose services shall be absolutely free." The proposal simply charmed a large proportion of the conference.

A COURSE of lectures on Diseases of Tropical Climates will be delivered by Dr. Patrick Manson in the medical school of St. George's Hospital on Tuesday, May 18th, and every succeeding Friday and Tuesday till July 23rd, at 5 P.M. The course is intended for medical men intending to practise in the tropics or in Eastern Asia, and as far as practicable will be illustrated by living specimens and by demonstrations of parasitic organisms associated with these diseases. The fee for the course will be three guineas, and application should be made to Dr. Isambard Owen, Dean of the Medical School, St. George's Hospital, S.W., from whom cards of admission may be obtained.

ON Wednesday morning seven more nurses, sent out under the auspices of the committee of the *Daily Chronicle* Fund for the Greek Wounded, left Charing-cross Station, *en route* for Athens.

PROFESSOR GEORGE HARE PHILIPSON, M.A., M.D.Cantab., D.C.L., has been re-appointed the representative of the University of Durham on the General Medical Council.

WE regret to announce the death of Dr. James Andrew, consulting physician to St. Bartholomew's Hospital, which took place on April 21st. Next week we shall publish a full obituary notice of his career.

THE Ingleby Lectures will be delivered at Mason College, Birmingham, by Professor Bennett May on May 19th and 26th, the subject being the Operative Treatment of Cancer of the Breast.

WE understand that Mr. Owen, the senior surgeon to St. Mary's Hospital, will be a candidate for a seat on the Council of the Royal College of Surgeons of England at the forthcoming election in July. The last representative that St. Mary's Hospital had upon the Council was Mr. Haynes Walton, who was elected in 1873.

Pharmacology and Therapeutics.

EUCAINE HYDROCHLORATE.

THIS remedy continues to attract attention, but further experience tends greatly to modify the enthusiastic records of early days. Professor Hobday of the Royal Veterinary College, London, has lately published the results[1] of the use of eucaine as a local anæsthetic. He says that the use of cocaine for operations upon the dog and cat must be attended with the greatest caution, as the toxic doses are very small. The newer remedy has been employed by him in some forty cases, some of them being specially favourable for making a comparison between the action of eucaine and cocaine. His results confirm the opinion that the toxic dose of eucaine is somewhat larger than that of cocaine and, at the same time, that for operations on the cornea eucaine compares very favourably with cocaine, although anæsthesia is not produced quite so rapidly; but for its local anæsthetic effects when injected subcutaneously or applied locally to places other than the eye, the results obtained in the horse, dog, and cat have not by any means come up to the results obtained with cocaine. It has been found, however, that a mixture of cocaine and eucaine dissolved in water possesses the better anæsthetic properties of the cocaine solution, and can be tolerated in larger doses than cocaine alone; and this is undoubtedly of advantage when removing large tumours from animals in which the toxic dose is so small. The solution of cocaine and eucaine recommended consists of half a grain of each to the drachm of water. With regard to the amount that can be used subcutaneously with safety, Professor Hobday considers that in the case of the cat and dog about one-fifth of a grain to each pound of body weight should not be exceeded.

THE TREATMENT OF ASCITES BY THE INJECTION OF OXYGEN INTO THE PERITONEUM.

M. Tessier last year recorded a case of ascites at the Lyons Société Nationale de Médecine, which had been successfully treated by Potain's method of abdominal puncture followed by injections of oxygen into the peritoneum. The case was one of ascites and generalised œdema, which probably depended upon cirrhosis of the liver. After the first tapping fourteen pints were withdrawn, but the fluid rapidly collected again. A second puncture was then made, and followed by the injection of 1300 cubic centimetres of oxygen. The operation was not painful and there was no rise of temperature. The abdominal circumference diminished from 128 to 102 centimetres, and the œdema of the lower limbs disappeared

[1] Journal of Comparative Pathology and Therapeutics, March, 1897.

very rapidly. When the case was reported the abdomen still measured 102 centimetres, and was quite resonant all over.

ANALGEN.

Analgen is the name given to a drug which for the most part has a similar composition and action to phenacetin. It is, however, said to have less toxic action owing to the fact that quinoline exists in its composition instead of phenol. As an antipyretic it is said to act slowly but surely, and so any sudden drop of temperature which might be attended with collapse is avoided. There is one important fact that is pointed out with regard to its action and that is that it is liable to produce periodical discolouration of the urine. This discolouration is said to be due to the combination of decomposition products of the analgen with the uric acid present in the urine. It is, however, stated that by giving bicarbonate of soda with the analgen this discolouration is avoided.

THE TREATMENT OF HÆMOPTYSIS.

The direct effect of drugs in arresting the hæmorrhage which occurs in cases of pulmonary tuberculosis is very difficult to estimate with any amount of accuracy. The majority of cases tend to become spontaneously arrested, and any drug which has been given previously is apt to get the credit of stopping the bleeding. Dr. Deguy believes strongly in the value of full doses of gallic acid in this condition, and he gives this drug in doses of from four to fifteen grains in the form of powders, pills, or solutions. In cases where the hæmorrhage is very severe he associates the gallic acid with ergotin thus: R. Gallic acid, thirty grains; ergotin, fifteen grains; make into twenty pills, of which five or more are to be taken each day. Others, however, do not put much faith in the action of these and other astringents of the same class, and it is difficult to see how such drugs can have any definite action on the bleeding vessels, the walls of which are generally severely diseased. The application of an ice bag is also another method which is believed by some to be efficacious, while others will have nothing to do with it. It is, again, difficult to see how this method of treatment can be of any direct use except by mechanically assisting to keep the patient quiet. One of the most effective methods of treating an ordinary case of hæmoptysis consists in giving a small hypodermic injection of morphia, which generally results in arrest of the hæmorrhage and the patient is at the same time mentally soothed.

THE TREATMENT OF EXOPHTHALMIC GOITRE.

M. Viguard showed a patient at the Lyons Medical Society who had suffered from exophthalmic goitre for three years, and had been treated by section of the cervical sympathetic. The case had been a very marked one in some respects; the exophthalmos and tremor were very marked—the pulse-rate was 108 per minute, but there was no goitre. At the end of January the cervical sympathetic was divided, and the superior ganglion extirpated. Considerable amelioration followed, especially seen in the diminished tremor, but the pulse-rate was not much modified.

M. Huchard prescribes bromhydrate of quinine and extract of ergot in the form of pills in those cases where vaso-motor symptoms are prominent. He has also given antipyrin with good results. Germain Sée has recommended the tincture of veratrum viride in small doses in this disease.

PHENOCOLL IN MALARIA.

Dr. Lavrinovich has found that hydrochlorate of phenocoll will sometimes succeed in controlling obstinate cases of malaria which resist the action of quinine. He prescribes about six grains three times daily, and has not noticed any unpleasant by-effects.

UNIVERSITY OF EDINBURGH.—The following is a selection from the degrees conferred at the Graduation Ceremonial, held on April 10th. Honorary Degree of Doctor of Laws:—Professor James Dewar, M.A., LL.D., F.R.S., University of Cambridge and Royal Institution, London; Emeritus Professor Sir Douglas Maclagan, M.D., &c.; and John Wyllie, M.D. Degree of Bachelor of Medicine and Master of Surgery:—Alexander Moir Rattray, James Trevor Williams. Degree of Bachelor of Science in the department of Public Health:—Patrick Hunter Gillies, M.B., C.M.; Rhodes Haygarth, M.B., C.M.; Herman Schmitz, M.D. (*in absentiâ*).

The Lancet Special Commission
ON THE
METROPOLITAN WATER-SUPPLY.

X.[1]

EAST LONDON WATERWORKS COMPANY.

History.

IN THE LANCET of April 24th (p. 1162) a description was given of certain water businesses which have ceased to exist, and it was mentioned that more than one of such undertakings in the East-end had been absorbed by the East London Waterworks Company. The earliest businesses which were carried on in the East-end of London were those of the New River Company, the Shadwell Company, and the West Ham Company, but the supply was so inadequate that many persons were obliged to get water "by any casual means or circumstances placed within their power."

The Shadwell Waterworks.—The Shadwell works were originated by Thomas Neale, who hired land for the purpose from the Dean of St. Paul's. A four-horse engine was at first used to pump the water, but in the year 1679 the works were enlarged and a second four-horse engine was added to that already in use. In the year 1687 Mr. Neale obtained a charter for carrying on his business and formed a company consisting of thirty-six shares, some of which he was able to sell at a good price. In the year 1691 the shareholders became a body corporate by letters patent. For a long time horses only were used for pumping the water. It was not until the year 1750 that a steam engine was put up. This engine was found to be incapable of doing the work which was necessary, but no further improvement was made until the year 1774, when one of Boulton and Watts's engines was erected. This engine was capable of raising 54 000 gallons of water an hour and was found not only to save expense in working but to increase very much the power of the Company to supply water. The districts supplied by the Company included the space from the Tower of London on the west to Limehouse on the east, and from Whitechapel on the north to the River Thames on the south.

The West Ham Waterworks.—A water business was started in 1745 to supply the lower part of Whitechapel, Stepney, Bethnal-green, and the villages of Bow, Stratford, and Bromley. The water was pumped by a steam engine and by a water-wheel, and there was a reservoir at Mile-end. This property was divided into four shares, and the works and those at Shadwell were bought by the London Dock Company in the year 1807.

The East London Waterworks Company was established in 1808 and purchased the Shadwell and West Ham works. The Company chose Old Ford as the best place for a pumping station and thirty acres on the banks of the Lea were bought. Four reservoirs were constructed having a total area of eleven acres. The two largest of these were situated on the east side of the Lea. The bottom of these reservoirs was made at the level of the bed of the river and their depth was 10 ft. The smaller reservoirs were 15 ft. 6 in. in depth and were situated on the west side of the river. The level of the bottoms of these was 5 ft. 6 in. lower than that of the others, and was 15 ft. below the surface of the water at half-tide, and their surface level was between that of the spring and neap tides. The water from the Lea passed into the reservoirs through six openings which had a total width of 42 ft., but differed in depth. Two of them were 4 ft. 6 in., three others were 4 ft., and was one 3 ft. 6 in. During the spring tides the water ran into the reservoirs for about four hours each tide. During the neap tides the water flowed in for about two hours. The reservoirs had sufficient storage capacity for a week's supply. It was usual to allow the water to remain two or three days in the reservoirs before it was used so that it might "deposit its feculence and become clear." The

[1] Nos. I., II., III., IV., V., VI., VII., VIII., and IX. were published in THE LANCET of Feb. 20th and 27th, March 6th, 13th, 20th, and 27th, April 3rd, 17th, and 24th, 1897, respectively.

reservoirs were arranged in such a way that the water from any one of them could be drawn off separately. The mud which accumulated at the bed of the reservoirs was removed from time to time. When this was done as much water as possible was allowed to flow out at the time of the lowest neap tides. The water which still remained in the reservoir—a depth of about 18 in.—was pumped out by the engines. An aqueduct which passed under the Lea connected the reservoirs. The Company had another reservoir at Mile-end near the Regent's Canal Bridge. This was situated 60 ft. above the level of the River Lea and was capable of holding sufficient water to supply 6000 houses. The station at Old Ford was a little over three miles from the Thames. The Act of Incorporation of the Company provided that the whole supply of water should come from the Lea when the water flowed up during the tides and the mills were not working. It happened that, as the sluices belonging to the mills on the Lea were not always opened to the same extent, the time at which the water reached the reservoirs varied; but, as a rule, it was found that the time of high tide at Old Ford was an hour later than it was at the point of junction of the Lea and the Thames. It was stated also that the level of the surface of the Thames was 13 ft. lower than that of the Lea. At the mouth of the Lea the rise of the tide was 18 ft.; at the waterworks it was only 5 ft. From these observations it was concluded that the water of the Lea was pent back during the rise of the tide in the Thames, and that as four hours elapsed before water flowed into the reservoirs it was the water which had collected in the Lea between the Thames and the reservoirs which passed the inlet to the reservoirs and filled them. The rate of the flow of the Lea towards the Thames was about two miles an hour, but the water returned at a rate of about one mile an hour, and the ebb tide opposite the works lasted about three hours. It was therefore concluded that only the Lea water was taken into the reservoirs and that the water taken by the Company contained no Thames water. In the year 1829 the Company obtained an Act to enable them to make a canal to convey water from a place near the Lea Bridge Mills and to construct a reservoir for receiving it near their works. In 1835 there were two engines of 40 horse-power, another of 70, and two others of 90 horse-power, which could be worked against a head of 108 ft. A water-wheel at Stratford was also used. The wheel worked generally for about twelve hours a day, and occasionally for a longer time. There was at this time an engine at Shadwell which pumped water from the Thames. The number of customers of the Company was about 45,000, and the district extended from Old Ford to Lower Clapton. From thence the boundary ran to Sun-street, Bishopsgate-street, Mansell-street, and Goodman's-fields, and southwards to the Thames at a point between the London and St. Catherine's Docks. The water was distributed through between 200 and 300 miles of pipes varying in size from 36 in. to 6 in. in diameter. The area supplied extended to a distance of three miles from the central works and the engines worked against a head of 120 ft. of water. At this time the height of the water-service varied from 6 ft. or 8 ft. above the level of the Company's works. Some houses, however, were served as high as 30 ft., but the Secretary of the Company urged that as they neither professed to give high service nor made any charge for it the difference in the height could not be reasonably a source of dissatisfaction to the tenants. The amount of water supplied daily at this period was 170,000 gallons. In the year 1828 the quantity of water pumped daily by the East London Company was 6,512,292 gallons. At this time the engines were able to pump over 8,000,000 gallons, and a new engine was being put up to increase the pumping capacity by over 3,000,000 gallons. The number of houses supplied was about 42,000. In the year 1815 the Company made an arrangement with the New River Company by which each withdrew from a part of its area of supply, and each Company authorised the other to resume its freedom of action in case of neglect or refusal on the part of the other to carry on the business there. By this arrangement no exclusive right was retained. At this time the London Bridge and the Lea Bridge Waterworks were still in the field. In 1820 the Company bought the Hackney Waterworks and Lea Bridge Mills, and obtained an Act of Parliament to enable them to remove their intake from Old Ford to Lea Bridge, from which point the water was brought down by a conduit and stored at the reservoir at Old Ford and pumped thence for the supply of the district. In 1852 an Act was obtained to allow the Company to make a new cut in connexion with the Lea for the purpose of improving the quality of the water, to construct reservoirs at Walthamstow, filter beds at Lea Bridge, and to make an intercepting cut on the west side of the Lea from Tottenham to a point below Ponders End to prevent polluted water from entering the river above the intake. In 1867 an Act was obtained to allow the Company to make a covered reservoir at Finsbury Park, and to make works at Sunbury for the supply of Thames water. By this Act the Company were allowed to take a quantity not exceeding 10,000,000 gallons of water daily from the Thames. In 1867 another Act was passed to allow the Company to increase the number of reservoirs at Walthamstow and filter beds at Lea Bridge, and they were compelled to discontinue the use of, and to fill up, the reservoirs at Old Ford, and to leave off using the open canal which connected the reservoirs with the works at Lea Bridge. This alteration immediately followed the cholera visitation of 1866—a visitation of which the geographical limits were very much those of the area supplied from the reservoir at Old Ford.[2] In the year 1886 an Act was passed which, among other things, authorised the Company to sink wells and to make works with the object of intercepting sewage and preventing it from getting into the river above their intake. In the year 1892 the works at Old Ford were finally given up.

A new reservoir has just been completed, another will be ready for use in the course of a few weeks, and new wells are being sunk. The Company are this session promoting a Bill to authorise them to make more new reservoirs.

THE HOSPITAL REFORM ASSOCIATION.

A MEETING of the Hospital Reform Association was held in Birmingham at the Grand Hotel on Wednesday afternoon, April 21st.

Mr. JORDAN LLOYD, who presided, in opening the proceedings said the meeting was called to create interest in questions which were thought by many to be ripe for discussion, to demand careful inquiry, and for settlement. This matter of hospital reform had been discussed over and over again; it had agitated the lay and the medical mind for many years, and in Birmingham a few years ago a committee sat for some days, and arrived at a series of conclusions which were almost practically identical with the objects of that association. The movement was not a professional one, and he was not sure that its initiation came from the medical profession; it certainly was not confined to the profession. It was a question which concerned the public equally with the profession, and it concerned the philanthropic part of the public as much as any other. The first object of the association was to prevent the abuse of hospitals, infirmaries, and dispensaries. There seemed to be a large number of persons who questioned whether there was such a thing as abuse of these institutions; but no impartial man who looked the facts of the position in the face without prejudice could fail to see that abuse. He thought that abuse was dominant in many of the hospitals of the kingdom. The first purpose of a hospital was to supply the sick with that medical attention which their cases demanded and which they were unable to obtain by reason either of their poverty or of the severity or peculiarity of their malady. Hospitals were not cheap "doctor-shops"; they were not for the distribution of cheap physic; they were not matters of mere public convenience. Another reason for the existence of hospitals—and it was a real reason—was the training of medical men. They were fortunate in Birmingham in regard to their Poor-law administration, and he felt proud of the fact that in that city the very poor people, he would not say were doctored, but had potentialities for being doctored a great deal better than that of the average middle-class. Therefore, what was constantly being said in Birmingham—namely, that the first object of hospitals was the doctoring of the poor was all moonshine. They were delighted to see the poor there, and to do the best they could for them; but the poor knew very well that there were other systems of medical relief which offered them quite as good advantages, and better

[2] "The area of intense cholera of 1866," according to Sir John Simon, "was almost exactly the area of this particular water-supply, nearly, if not absolutely, filling it, and scarcely, if at all, passing beyond it."

in many respects than were offered to them by the hospitals. That the question of abuse could be dealt with, and would be dealt with, in a way satisfactory both to the public and to the medical profession he was quite confident. The second object of the association was to promote the establishment of central hospital boards in London and other large towns. He had thought over this question for many years, and he was absolutely certain that there were more economical ways of administering hospitals' than were now practised. If the whole of the hospitals in Birmingham were administered by some central board or committee the administration would be very much cheaper. That this was done was due to the existence of an absurd jealousy on the part of the hospitals one against another. There ought to be no jealousy in the doing of common work like that of hospitals. The formation of a central board would also assist in preventing abuse. The third object of the association was to provide properly regulated provident dispensaries. One of the suggestions made by the association was that the number of cases seen by one medical man in one day should not exceed twenty. That suggestion he thought utterly impracticable. At the Queen's Hospital one of their officers limited his number to twenty-five, but he (the chairman) had not ventured to adopt any such limit, because it was possible that if he did so he should see twenty of the most trivial cases. Those who were able to push their way to the front and those who lived nearest would get the first attention, and the more trivial the malady the earlier, probably, the patient would be there. He would not allow that every person who received an injury, no matter how serious, was entitled to go to a hospital for a first opinion. Whether persons in such circumstances got the best opinion by going to a hospital was a question he would rather not touch upon, but hospitals were only bricks and mortar, and the skill of a hospital depended upon the skill of its staff. Mr. Jordan Lloyd then moved the following: "That this meeting of the medical profession practising in Birmingham and the district is of opinion that the question of hospital reform should be dealt with without further delay by the lay managers and acting staffs of our various hospitals and dispensaries, and thinks that the recommendations issued by the Hospital Reform Association for the better regulation of the out-patient and casualty departments are worthy of their close consideration."

Mr. M. HALLWRIGHT seconded, and Mr. E. CHESSHIRE supported the motion.

Dr. KIRBY moved as an amendment, that selected representatives of the general practitioners should be added to the committee to consider the subject.

Mr. A. OAKES seconded the amendment.

The CHAIRMAN said he could not accept Dr. Kirby's suggestion as an amendment, because the reference to the central board was one of the objects of the association, and at present it was not defined how that board should be constituted. He had no doubt the claims of the general practitioners to representation would be considered.

Dr. ISAMBARD OWEN said he could not agree with the chairman that the principle of limiting the number of out-patients was impracticable. So far from being impracticable it had been carried on at St. George's Hospital with complete success for over thirty years, and it was a principle which everyone connected with that hospital would be sorry to see altered. Two objects were aimed at: in the first place the benefits of the hospital should go only to those whose poverty rendered them worthy objects of charity, and, secondly, that the hospital charity should go to the severest cases that applied. The out-patients were seen every day, first of all by the resident medical officer, who examined them from the point of view of the severity of their cases, and then from the point of view of their social position. Assuming the applicants to be fit objects for charity, he picked out fifteen medical and fifteen surgical cases, apparently the most serious, for treatment that day, and the other applicants might, if they chose, apply another day. If, however, any of those cases were so urgent that the postponement of treatment would involve any serious risk, the resident medical officer, at his discretion, was empowered to prescribe treatment for a single day, but it was very rare that it was found necessary to exercise that power. At St. George's Hospital, too, there was a system of inquiry by the officers which answered extremely well. There were no out-door inquiry officers, but the resident medical officer made the necessary inquiries of the patient, and he was rarely mistaken in the conclusion he arrived at. If he was doubtful as to the social position of the patient the latter was sent to the secretary, and if the latter had any doubt treatment for the time being was given and the case referred to the Charity Organisation Society. If that society reported unfavourably further treatment was invariably refused. In Birmingham, with its much more complete municipal organisation, he should think there would be little difficulty in organising a central board of inquiry which would be very effective. The system he had alluded to had worked remarkably well at St. George's Hospital during the eleven years he had had experience of it.

Dr. AYSHFORD said he believed that a man who was willing to work hard among the poor could make a good living—in fact, better than he could among the richer classes; but the competition of the hospitals pressed very hardly upon the general practitioner.

The resolution was carried unanimously.

Mr. GARRETT HORDER said that the association, though only six months old, had made some impression upon the hospital world. There had been a distinct reform movement in one of the London hospitals, in which the out-patients and casualty cases numbered 180,000 or 190,000 a year. Birmingham wanted hospital reform very badly indeed. The association proposed to hold the next meeting either in Liverpool or in Manchester, both of which towns were hotbeds of hospital abuse.

The following gentlemen were appointed to form a committee to deal with the subject of hospital reform: Mr. Jordan Lloyd, F.R.C.S. Eng. (chairman), Mr. Edwin Chesshire, F.R.C.S. Eng., Mr. J. T. J. Morrison, M.A., M.B. Cantab., F.R.C.S. Eng., Mr. G. R. Ayshford, M.B., C.M. Edin., Mr. Gordon Nicholls, L.R.C.P. Edin. (honorary secretary), Mr. M. Hallwright, M.R.C.S. Eng., Mr. L. Rose, M.B. Edin., Mr. E. D. Kirby, M.D. Edin., Mr. Arthur Oakes, M.R.C.S. Eng., and Mr. Charles S. Johnston, M.R.C.S. Eng.

THE GRECO-TURKISH WAR.

THE news—so dramatic in its effect and so disastrous to the Greek cause—cannot be regarded as a surprise; the surprise would have been if the reverse had happened and Greece had crumpled up the military power of Turkey. It has not been one of those cases in which educated and thoughtful people were wise after the fact, for there were comparatively few persons, especially among officers of the army, in this country who entertained much doubt on the subject. The difference in population of Turkey and Greece and in the military strength of the two countries, the numerical superiority of the Turkish army, the strength of its artillery arm, the character of its rifled weapons, its experience in military training and in the field, were all factors that had to be taken into account, and they left little room for difference of opinion among military experts. Since the Greek War of Independence the art and science of warfare have been revolutionised. As far as the published accounts of the history of the present war are concerned they gave, no doubt, a meagre, conflicting, and confusing description of the events that were taking place, but there is no longer room for doubt. Edhem Pasha's army has pierced the centre of the Greek frontier defence and proved victorious on its left and then on its right, and apparently secured itself against any serious flank attack. Thessaly, which Greece gained by treaty in 1881, she has lost by conquest in 1897, and the country now lies open to the advancing Turkish army. The territory beyond is historical, and the names of Pharsalia and Thermopylæ recall to mind the studies of school life and the great events of which they were the theatre in times long past. When we said last week that the Turks were apparently masters of the situation we confess that we did not realise, however, that the end was so near and that a few hours were to be crowded with such dramatic results. Turning to the conduct of Turkish troops in this war, we are bound to say that, altogether apart from their acknowledged bravery and fortitude in the field, there seems to be a general consensus of opinion that the Turks have conducted themselves admirably in the present campaign and with great moderation and excellent discipline; there have been no cruel and wholesale massacres of the inhabitants of towns and villages, and the dead and

wounded have been treated with a respect which has not usually hitherto characterised a Turkish force. On this occasion the Turks seem as if they had forsaken an article and practice of their religion, which recalls some of the wars recorded in Old Testament history, and to have taken a step forward in the conduct of civilised warfare. This should be recognised and placed to their credit and that of their able and seemingly humane leader, Edhem Pasha. Still, from the difficult nature of the country, from the amount of severe fighting which has taken place, and the rapid retreats that have had to be executed, we fear that the sufferings of the wounded and of the fugitive families must have been very great. The accounts that have reached us of the losses in the several engagements have represented these as so small that either the fighting could not have been so severe as described or the estimated losses have been greatly understated. The fact, however, is that these are unknown; there are no statistics, not even approximate statistics, and it is curious how little we have yet learned of the state of the military hospitals of the belligerent forces, of the number of wounded they contain, or of the methods of ambulance transport adopted. All this has still to be recorded, and the medical history of the campaign can only be written when it has terminated. It is fully recognised that the Greeks have fought with gallantry and held and defended their posts with brave tenacity of purpose. Towards the last, and after their defeat at Mati, when they saw that they were being out-manœuvred and surrounded and that the position was no longer defensible and had to be evacuated, it was only natural that some panic should ensue and precipitate flight. The latest accounts, however, give a terrible picture of the scene presented by the retreat of the demoralised and panic-stricken army. The line the Greeks have now taken up at Pharsalia and beyond is supposed to be capable of being far better defended than those they have relinquished, but we fear that at best a continuance of the warfare will only delay the seemingly inevitable end. As we said last week, there is ample room for the provision of medical, surgical, and philanthropic aid to the sick and wounded of both sides, but especially for the side of the Greeks. Switzerland is sending an ambulance corps with nine surgeons to the seat of war. The ambulance hospital and corps organised by the Imperial Ottoman Bank, and under the medical charge of Dr. Lardij, has probably reached Elassona ere this, and several nurses are leaving this country for the seat of war in addition to those who have already proceeded there.

THE NEW WATER-SUPPLY AT WORTHING.

FORMAL OPENING OF THE WORKS.

THOSE who attended the inaugural ceremony at the New Waterworks of Worthing in the brilliantly auspicious weather of Monday last must have been struck by the fact that the inhabitants of Worthing were keenly alive to the importance of the event. The picturesque town was prettily decorated and there was hardly a single householder who did not share in the enlivenment of the proceedings by displaying a profusion of coloured bunting on his house suitable to such an occasion. Nor were the town councillors behind in marking the importance of the occasion, and the Mayor is to be congratulated on arranging an attractive programme and adding brilliance to the ceremony by the excellent display which was provided in the furnishing of escorts, guards of honour, &c., a display notably enhanced by the presence in the demonstration of the lifeboat and fire brigades and a detachment of coastguards. His Royal Highness the Duke of Cambridge, escorted by General Bateson, arrived punctually at the time announced (11.45 A.M.) at Worthing Station, where he was received by the Mayor and Councillors. After an address couched in terms appreciative of His Royal Highness's visit the company proceeded in carriages to the site of the new works, which were inspected with considerable interest. The Duke started the pumping engines by giving a few turns to the steam valve admitting steam into the cylinders. The usual naming ceremony was then performed, the Duke calling one engine Victoria and the other Cambridge. Mr Mansergh, jun., son of the engineer who designed the works, then presented an interesting statement of their history and construction.

It was in 1893 that the Corporation of Worthing resolved that new works should be constructed and that the source of supply should be beyond the possibility of contamination. Subsequently Mr. Mansergh was instructed to prepare a scheme, and after consultation with several leading geological experts the present site was chosen. In the meantime, as was pointed out in THE LANCET of June 9th, 1894, a pure and abundant temporary supply of water was placed most generously, unreservedly, and in a time of the utmost need, at the disposal of the authorities by Mr. Edward Harrison, with permission to use his property at Broadwater as freely as occasion demanded. It is pleasing to learn that this magnaminious action was recently appreciated in a practical manner by the authorities at Worthing, who presented him with a service of plate in acknowledgment of the real and important work of rescue which Mr. Harrison had so nobly and unstintedly done. The new well, which is situated under the western end of the engine house, is 115 ft. deep from the ground surface. It is sunk 60 ft. into loamy clay and sand and 50 ft. of solid chalk. For 80 ft. downwards the boring is 12 ft. in diameter, while lower it is 12 ft. The upper sides of the well to the extent of 33 ft. are lined with eighteen inches of brickwork in cement, and the lower portion with cast iron cylinders. Water was found as soon as the chalk was reached, and by the time the well was sunk to its full depth the quantity yielded was about 1,000,000 gallons per day. From near the bottom of the well headings are driven in a north-westerly, easterly, and south-westerly direction for an aggregate distance of fifty yards, and are lined with brickwork. The pumping machinery consists of two horizontal compound differential condensing engines, each working a pair of pumps which lift the water into chambers under the engine-house floor, whence it is forced by two pairs of double acting force pumps through a 16-inch rising main to the reservoir in the chalk on the Downs close by, each pair of pumps being driven by one of the engines. When working at the ordinary speed of twelve strokes a minute each will raise 1000 gallons per minute from the bottom of the well to the adjacent reservoir. The reservoir on the Downs is capable of holding 2,000,000 gallons and is circular in plan and 25 ft. deep; it is constructed with concrete walls and floor, and lined throughout with asphalt, the asphalt on the walls being protected by brickwork. The top water level is 190 ft. above ordnance datum, or about 80 ft. higher than the old water tower in the town. The distance of the reservoir is about two miles north from Worthing. A cast iron gravitation main, 14 in. in diameter, is laid from the reservoir to near the railway station, and is connected by branches with all the principal distributing mains in the town and also to a trunk main which is part of the old West Worthing waterworks, which the corporation has purchased, and which supplies the west ward of the borough. The total cost of the undertaking amounts to nearly £31,000. The yield of water has been thoroughly ascertained, and it it estimated at an average of 1,500,000 gallons a day, which at 30 gallons per head per day would be sufficient for the supply of 50 000 persons. Since the resident population is about 19 000 there is an ample margin for the provision of visitors. From the results of an analysis made in THE LANCET Laboratory, and published in our columns last week, it will be seen that the water is of admirable purity and well adapted for all dietetic purposes.

It should be added that the sewerage system has been thoroughly overhauled and reconstructed. A new main sewer has been laid right through the town, and pumping plant and storage-tanks have been installed near the outfall, at the eastern extremity of the borough, for removing the contents of the sewers and for storing the sewage during the time of tide locking, and thus preventing the forcing of the sewage back into the mains, which hitherto had proved a frequent source of annoyance and trouble. The outfall itself has also been lengthened so as to carry the sewage to below low water mark and to avoid the discharge of sewage upon the beach. The discharge is allowed to take place under the best conditions for its removal by the sea without pollution of the foreshore. These improvements have cost a little over £37,000.

There was a distinguished company present at luncheon at the town hall after the opening ceremony. The Mayor (Captain A. B. S. Fraser) presided. Amongst those present were Lord Edmond Talbot, General Sir William Butler, Sir Henry Fletcher, Admiral Vansittart, the Bishop of Chichester, Colonel Tolson, Colonel Gem, Colonel Nobel Edwards, and the Mayors of Brighton, Chichester, Arundel, and Lewes. The toasts, which were commendably few and short, referred chiefly of course to the important event in the history of Worthing which had been signalised that day. The authorities have not left a single stone unturned to insure the healthiest possible conditions of the town. They have spent a large sum of money, probably amounting to over £100,000; but it would have been impossible to have devoted such a sum to a better purpose. It is an outlay which now enables them with every right to say that the sanitary provisions of the town of Worthing in regard to water-supply and sewage disposal are second to none in any other health and seaside resort in the kingdom. The whole incident has proved an excellent object lesson in the first principles of sanitation, and though the past has been a bitter experience there is no reason now why the future should not bring with it well-earned prosperity. With the ceremony performed by His Royal Highness the Duke of Cambridge on Monday last the sanitary difficulties and troubles of Worthing, we may confidently hope, have ceased.

THE SANITARY CONVENTION OF VENICE, 1897.

No. I.

THE Sanitary Convention which was signed at Venice in March last is the fourth of a series of International Conventions which have as their aim the control of foreign infectious diseases in such a way as to prevent their spread into neighbouring countries other than those in which they happen to prevail, and especially into Europe. For many years before any Conventions were signed there had been international gatherings which had been convened with the same object, but the resulting proposals were all so largely based on purely quarantine lines that Great Britain could never accept them, and not one of the Conventions was ever ratified. The last of these conferences which thus failed was held in Rome in 1885, and after this date it seems to have been understood that a successful conference must mean much more advance on the lines of English sanitary administration than the European nations had ever yet assented to.

The first of the four successful conferences was held in Venice in 1892, and after the resulting Convention had been somewhat substantially modified to meet the views of this country it was ratified and was accepted by the principal European nations. It dealt with cholera, and it went on the mistaken notion that the greatest danger to Europe was by means of the sea route. Those who held that view saw no difficulty in stopping cholera at the Suez Canal, and although they were warned by the British delegates that the land route was a much more serious danger, they contented themselves by controlling the sea route only. The Venice Convention of 1892 was, however, a document of the greatest importance for this country, because it enacted for the first time that a vessel arriving in the ports of any of the contracting countries was no longer to be judged by reason of the health of the port from which it had sailed, but by reason of the actual state of health of those on board. It is true that this great concession to British views was more complete in words than in fact, because free pratique was not to be granted at Suez, for example, unless five days had elapsed since the vessel had left the last infected port. This, however, made no difference to our traffic from Bombay, where cholera is unfortunately all but endemic, because the five days had always fully elapsed before a vessel from British India could reach the Canal; and the condition was hence assented to by this country. Another set of provisions dealt with the case of vessels reaching Suez and on board which cholera had actually occurred. Here again there was substantial advance in the direction of British views; for it was conceded that if the sick persons, together with those who had been in actual contact with them, were landed at the hospital established at Moses' Wells the vessel might after disinfection be allowed to proceed on its journey to the Mediterranean, provided the passage of the Suez Canal was effected "in quarantine," that is to say with guards on board who would prevent communication with the shores of the canal. These were, substantially, the two great points of interest in this Convention in so far as Great Britain was concerned; but the Convention dealt in detail with a number of other subjects, including regulations as to arrivals at Egyptian ports and the re constitution of the Sanitary, Maritime, and Quarantine Council of Egypt—an international body which is responsible for the control of disease in Egypt, for the management of some of the pilgrim stations on the Red Sea, and also for regulating the traffic of the Suez Canal in so far as health and disease are in question.

But whilst the first Venice Convention was engaged in discussing the sea route, and openly ignoring the land route of cholera, that disease was slowly but surely advancing through Turkestan and towards the Russian frontier, which it soon passed, and then overspread Europe. This event led to the urgent assembly of the second successful International Sanitary Conference, which was held at Dresden in 1893, and which had for its professed object to control cholera when once it had made its way into Europe, and to prevent its diffusion from one country to another, whether across land frontiers or by way of sea and river routes. The question of control by land routes in Europe had no direct concern for this country; but that by way of the sea route was important. The result of the Conference was in this respect in the main satisfactory, for it applied the principles of the Venice Convention of 1892 to the circumstances of Europe, and it avoided, for the first time, making it compulsory for any nation who should adhere to the Convention to impose quarantine in their ports. It is true that quarantine was still permissive under the new name of "observation" for a limited period of five days, but the Convention practically accepted as an alternative the English system of merely keeping suspected persons under supervision in their own homes and of allowing the infected vessel to depart free of control as soon as the sick had been landed in hospital and certain measures of disinfection had been carried out. Great Britain ratified this second Convention after making it clear, by means of a special reservation, that she only adhered to its terms on the distinct understanding that for the purposes of British ports "observation" would never be construed into the quarantine detention of healthy people or of ships which, though they might have been infected, had been properly disinfected.

But the Venice and the Dresden Conventions only professed to deal with the control of ordinary traffic by land and by sea for the purposes of the prevention of cholera, and it was very properly admitted that one of the greatest dangers of cholera lay in the pilgrimages paid by Mohammedans to Mecca and Medina in the Hedjâz. Hence the French Government invited the principal nations of the world to assemble once more in 1894 in Paris in order to prepare a Convention for the control of the spreading of cholera by Mussulman pilgrims, whether they came from British India, the Dutch Indies, or elsewhere in Asia, or whether they started from Egypt, Algeria, Bosnia, Russia, &c., on the Mediterranean side of the Suez Canal. A very complete code was drawn up; but for us its interests centred in the measures to be taken at the departure of pilgrims for Indian ports, at the detention in the island of Camaran in the Red Sea before landing at Yeddah, and in the proposed sanitation of the towns and cities visited by the pilgrims in Arabia. This Convention again exhibited considerable progress, and, above all, it called upon Turkey to give to the quarantine station of Camaran some semblance of healthiness and decency; and to provide for the pilgrims on their journey through Arabia some proper health accommodation, and wholesome water. It also reduced the periods of quarantine detentions hitherto enforced by many days. But, it went on the assumption that Turkey, who took all the sanitary taxes of the pilgrims, would do her duty in this matter, and it failed to take proper account of the endless delays and evasions which always characterise Turkish administration. Turkey, too, declined to sign the Convention and pleaded that this country had only signed with reservations. That was true. One of our reservations was designed to relieve us from the obligation of collecting Turkish taxes for the Turkish Government, for we declined to include all those

taxes in the price of the pilgrim's ticket; another was concerned with the amount of space to be allotted to pilgrims on board pilgrim vessels; and the third reservation announced that Great Britain and British India refused to be controlled by the regulations laid down as to traffic in the Persian Gulf. The truth was that the Paris Convention absolutely abandoned, as regards the Persian Gulf, all that had been conceded by the Conventions of Venice and Dresden as to judging a vessel by reason of the health on board instead of by reason of the health of the port of departure; and this unfortunate abandonment of principle led to the Paris Convention never being issued by the French Government. It is true that the document had been signed, but it could only be ratified by this country with reservations that were regarded as of such importance that it was deemed preferable to ignore it and await a more favourable opportunity for reviewing the whole matter.

These three Conventions had been concerned with cholera, but last year plague became much the more pressing and important disease. This occurrence afforded an opportunity for a fourth International Conference—namely, the one held this year in Venice. It concerned itself with the control of plague by land and by sea, and it afforded an opportunity of once more raising questions of the ratification of the Paris Convention, which had remained a dead letter. It was under these circumstances that the International Conference recently met and brought to a successful termination labours that resulted in the signature of a fourth Convention—namely, the Sanitary Convention of Venice, 1897, the provisions of which we propose to discuss in some detail in a series of articles.

THE ROYAL ACADEMY.

THE 129th exhibition is, we think, quite up to the level of its predecessors, and if there is no very striking picture there are many above the average. The days have gone by of roped-in pictures attended by a policeman to move on the crowd, but in the present exhibition there are one or two works which will excite worthy attention.

We are glad to be able to note the absence of death-bed scenes and sick children, for the charnel-house school of painting is a thing to be deprecated. Among the works which particularly struck us was "Calypso's Isle" (39) by Mr. Herbert Draper. This artist's work is always clever, and he is quite up to his usual level. The nymph is sitting in a rock with her back towards the spectator; she is correctly drawn and modelled and the flesh tints are good. Also Mr. Draper deserves a word of praise for his sea, for he has managed to give very truly the effect of that ever-changing Mediterranean so indefinite with its blues and greens and purples dashed with red that the old dwellers by its shore were reduced to calling it wine coloured. Mr. Walter Shaw has met with his usual undeserved fate of being very badly hung, but his "Rain Squall" (311) shows his power of representing our cold, grey, northern waters; moreover, his water looks wet, an effect we do not always see in sea pieces. Mr. J. C. Dollman has a "Temptation of St. Anthony" (445). The animals are good, but we do not consider that it would take a saint to resist the young woman, for she looks unhealthy and œdematous. "Hamlet," by Mr. E. A. Abbey, is an amazing picture, barbaric to a degree and blazing with colour. The subject is the Play Scene, although the players are "off"; but the faces of the King, the Queen, of Hamlet and Ophelia, and of the rough soldier courtiers afford wonderful studies of varying expressions.

Mr. J. R. Weguelin deserves a word of praise for the anatomy of his Nymph (600), though she is hung in a bad light. But perhaps the most striking thing in the galleries is (663) "Steady the Drums and Fifes," the 57th (D e hards), drawn up under fire on the ridge of Albuera, by Lady Butler.

To the picture is appended a note from Cardinal Manning concerning the mental strain which such an act involves, and Lady Butler has certainly succeeded in catching passing emotions and fixing them on canvas. The subjects of the picture, in many cases mere children, are waiting in the midst of death, and the mental tension is evident; one child has already been struck down, and clutches in a death grip the leg of his comrade. Mr. Rudyard Kipling's Jake and Lew were heroic, but these are even more so.

To turn to the more purely medical pictures. In the first room is the charming little portrait of the late Dr. E. Ballard by his daughter (9), a reproduction of which appeared in our columns upon Jan. 30th, 1897. Mr. C. Neil Knight has (186) "A Sister of St. Vincent de Paul," representing one of these devoted woman watching by a sick bed in the dim light. Mr. Ouless sends a fine portrait of Lord Lister (296), a presentation portrait. Another presentation portrait is that of Mr. Henry Power, F.R.C.S. (551), by Miss Lucy Power, and presented by his house surgeons at St. Bartholomew's Hospital. The technique is good but we do not think that Miss Power has quite caught the likeness. In Gallery XI. are two portraits of special interest to medical men; one (999) by Mr. H. Harris Brown, of Sir William MacCormac, a good likeness and remarkable for the skilful way in which the various shades of red in the gown, the curtain, and the tablecloth are managed; the other (1028), a very quiet, subdued picture by Mr. Percy Bigland, of the President of the Royal College of Physicians—Dr. Samuel Wilks. Mr. Ralph Hedley (1062) has a well-drawn scene called "Passing the Doctor," a study of recruits being examined. With the exception of the fact that the doctor has his stethoscope at an angle at which we are sure he could not hear anything, the picture is good. In the sculpture room are a fine medal, by Mr. Alfred Gilbert (1079), for presentation at St. Bartholomew's Hospital in memory of the late Sir W. Lawrence; a bust of Sir J. B. Lawes by Mr. F. Verheyden, and another of Mr. Dudley Edginton, M.R.C.S., by Mr. Paul Montford, a design for the Huxley Memorial Medal by Miss Ruth Canton (2035), and (2055) a life-like bust of Sir Richard Quain by Mr. Thomas Brock.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Chelmsford Rural Sanitary District.—Dr. Thresh reports that during the two years in which an isolation hospital has been available for this district the number of notified cases of infectious disease has been but one half of the previous average, and he is inclined to regard this decrease as due in part to the good effect of prompt removal and isolation. An outbreak of scarlet fever occurred in Danbury during 1896 in which those attacked were attending the infants' department of the national schools. The registers were examined, and on visiting the families of certain absentees children were discovered desquamating from scarlet fever. The outbreak in question was apparently caused by the return to school of a child from one of the invaded houses. The report before us contains a table setting forth the meteorological data, together with the deaths and notifications for the district during the past year, and Dr. Thresh observes that he will be glad if any member of the district council will study this and similar tables with a view to pointing out the relationship between the weather and the prevalence of disease. It is well that the councillors should take an intelligent interest in the statistics relative to their district, and we trust that Dr. Thresh will receive the assistance for which he asks.

Withington Urban Sanitary District.—The obscure manner in which school attendance is at times responsible for the spread of infectious disease, although that influence may not be at once apparent, is well illustrated in Dr. Railton's current annual report, in which it is stated that children suffering from measles were found to have continued at school while in an infectious condition, in spite of the fact that the teachers had been especially warned to be on the alert. Dr. Railton insists on the difficulty which must always beset attempts on the part of school teachers to recognise illness amongst their pupils, and he suggests that it would be a useful precaution to have school children inspected daily by a medical man in all instances where a case of infectious disease had been recognised among the pupils, the examination to continue as long as fresh cases occurred. Obviously the ideal conditions of inspection would be found in the regular daily

inspection of schools by medical men, but, failing that, Dr. Railton's suggestion has much to commend it.

Lytham Urban Sanitary District.—In commenting upon the prevalence of scarlet fever in this district Mr. J. H. Jenkins observes that it will be impossible to prevent occasional cases from occurring until the Notification Act is universally adopted in the country. We are afraid that even when this is the case scarlet fever will not cease from troubling us, since notification is but the expression at any given time of the cases of infectious disease which are recognised; and beyond these there will, at any rate, for many years to come, be an uncertain number of anomalous, and in large part unrecognised, cases. Lytham was one of the places which first gave trial to the Hermite system of sewage treatment, but the trial has now, it appears, been discontinued, and it is proposed to discharge the untreated sewage out to sea on the ebb tide. Mr. Jenkins is not in favour of the scheme, and he points out to the council some of its disadvantages, one of which is the pollution of a bed of mussels on the foreshore. We are glad to note that in the vicinity of this district two joint hospital boards have been formed, one to provide a small-pox hospital and the other a hospital for other infectious diseases.

Thingoe Rural Sanitary District. — Dr. Scott Kilner relates in his current annual report an outbreak of measles in which some of the patients suffered almost simultaneously from an attack of scarlet fever. These instances are always worth recording, and it is well to bear them in mind in all etiological inquiries. The recognition of the coexistence of two infectious diseases in the same individual would perhaps have been made earlier than it was, had it not been for the position taken up by John Hunter that "all diseased actions are simple," and that no two diseases were capable of existing in the body simultaneously. Hunter, however, pointed out that the potentiality of one disease may be present in the body during the manifestation of another, and he gives instances of the arrested action of inoculated small-pox in the presence of an attack of measles.

Maldon Rural Sanitary District.—This district contains, it appears, within its limits some important oyster layings, and we are glad to note that the oyster merchants have been acting, at least partially, on the advice of Dr. Thresh relative to the purification of the Burnham sewage effluent. We regret, however, to note that the sewage works, although completed, have "never been systematically attended to," and that Dr. Thresh on his visits has always found "the tanks more or less foul, and the effluent not what could be considered satisfactory," which fact is much to be deplored. We gather from the Local Government Board report that the waters of the Crouch and the Roach are exceptionally well fitted, from a sanitary standpoint, for oyster culture, and that both these estuaries could easily be rendered quite above suspicion; and the oyster merchants of the district have consequently only themselves to blame if they fail to take advantage of the excellent facilities with which nature has provided them.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6226 births and 3965 deaths were registered during the week ending April 24th. The annual rate of mortality in these towns, which had been 18·6 and 17·9 per 1000 in the two preceding weeks, rose again last week to 18·8. In London the rate was 17·5 per 1000, while it averaged 19·7 in the thirty-two provincial towns. The lowest death-rates in these towns were 10·1 in Derby, 11·2 in Croydon, 11·3 in Gateshead, and 12·5 in Brighton; the highest rates were 24·7 in Liverpool, 27·9 in Salford, 28·8 in Manchester, and 36·1 in Bolton. The 3965 deaths in these towns included 367 which were referred to the principal zymotic diseases, against 338 and 335 in the two preceding weeks; of these, 109 resulted from whooping-cough, 101 from measles, 57 from diphtheria, 40 from diarrhœa, 31 from scarlet fever, and 29 from "fever" (principally enteric). No death from any of these diseases was recorded in Preston; in the other towns they caused the lowest rates in Swansea, Derby, Hull, and Gateshead, and the highest rates in Burnley, Manchester, Salford, and Bolton. The greatest mortality from measles occurred in Newcastle-upon-Tyne, Burnley, Manchester, Salford, and Bolton; and from whooping-cough in Portsmouth, Plymouth, Salford, and Blackburn. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 57 deaths from diphtheria included 40 in London, and 2 each in Birmingham, Liverpool, Salford, and Leeds. No fatal case of small-pox was registered last week in any of the thirty-three large towns. There were 7 cases of small-pox under treatment in the Metropolitan Asylum Hospitals on Saturday last, the 24th ult., against 17, 16, and 11 at the end of the three preceding weeks; no new cases were admitted during the week. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2442, against 2512, 2449, and 2406 on the three preceding Saturdays; 269 new cases were admitted during the week, against 219, 224, and 216 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 271 and 273 in the two preceding weeks, further rose last week to 289, but were 95 below the corrected average. The causes of 59, or 1·5 per cent., of the deaths in the thirty-three towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Cardiff, Bradford, Newcastle-upon-Tyne, and in thirteen other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Liverpool, Preston, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 24·6 and 22·3 per 1000 in the two preceding weeks, rose again to 22·6 during the week ending April 24th, and exceeded by 3·8 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14·4 in Greenock and 18·1 in Aberdeen to 29·0 in Perth and 29·2 in Edinburgh. The 673 deaths in these towns included 41 which were referred to whooping-cough, 39 to measles, 11 to diarrhœa, 5 to scarlet fever, 4 to "fever," and 2 to diphtheria. In all, 102 deaths resulted from these principal zymotic diseases, against 95 and 107 in the two preceding weeks. These 102 deaths were equal to an annual rate of 3·4 per 1000, which was 1·7 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 38 and 39 in the two preceding weeks, further rose to 41 last week, of which 23 occurred in Glasgow and 13 in Edinburgh. The 39 deaths referred to measles corresponded with the number recorded in the preceding week, and included 23 in Edinburgh and 14 in Glasgow. The fatal cases of scarlet fever, which had been 3 and 4 in the two preceding weeks, further rose to 5 last week, of which 3 occurred in Edinburgh. The 4 deaths referred to different forms of "fever" showed a decline of 3 from the number in the preceding week, and included 2 in Glasgow. The deaths from diseases of the respiratory organs in these towns, which had been 153 and 154 in the two preceding weeks, further rose to 165 last week, and exceeded by 56 the number in the corresponding period of last year. The causes of 46, or nearly 7 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the three preceding weeks from 38·5 to 28·2 per 1000, rose again to 34·6 during the week ending April 24th. During the past three weeks of the current quarter the death-rate in the city has averaged 32·9 per 1000, the rate during the same period being 17·2 in London and 27·3 in Edinburgh. The 232 deaths registered in Dublin during the week under notice showed an increase of 43 upon the number in the preceding week, and included 41 which were referred to the principal zymotic diseases, against numbers declining from 74 to 36 in the five preceding weeks; of these, 19 resulted from measles, 14 from whooping-cough, 4 from diarrhœa, 2 from "fever," 1 from diphtheria, and 1 from scarlet fever. These 41 deaths were equal to an annual rate of 6·1 per 1000, the zymotic death-rate during the same period being 1·6 in London and 7·6 in Edinburgh. The fatal cases of measles, which had declined from 46 to 15 in the five preceding weeks, rose again to 19 last week.

The deaths referred to whooping-cough, which had been 9 and 14 in the two preceding weeks, were again 14 last week. The 2 deaths from "fever" also corresponded with the number in the preceding week, while the mortality from scarlet fever and from diphtheria showed a decline. The 232 deaths in Dublin last week included 45 of infants under one year of age and 47 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed an increase upon those recorded in the preceding week. Six inquest cases and 4 deaths from violence were registered; and 70, or nearly a third, of the deaths occurred in public institutions. The causes of 20, or nearly 9 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL CHRISTOPHER W. M. KEYS M.D., to be Brigade-Surgeon-Lieutenant-Colonel, vice T. O'Reilly, retired.

Surgeon-Lieutenants Gaine and Phillips have joined at Woolwich.

INDIA AND THE INDIAN MEDICAL SERVICES.

Brigade-Surgeon-Lieutenant-Colonel S. M. Salaman has delivered over charge of the Yerrowda Central Prison. Surgeon-Captain J. Mulvany, on duty in connexion with famine relief, Mirzapore, is transferred to duty in connexion with precautions against bubonic plague at Manikpore in the Banda District. Surgeon-Lieutenant C. D. Dawes, on duty in connexion with precautions against bubonic plague at Manikpore in the Banda District, is transferred to duty in connexion with famine relief in the Hamirpore and Jalaun Districts. Surgeon-Captain H. B. Melville, Civil Surgeon, Second Class, sub *pro tem.*, to be confirmed in that appointment, but to continue to officiate as Superintendent, Central Prison, Lucknow. Surgeon-Captain J. Chaytor-White, Officiating Civil Surgeon, to be Civil Surgeon, Second Class, sub *pro tem.* Surgeon-Captain R. E. Molesworth, A.M.S., is appointed to the Civil Medical Charge of the Almora District, in addition to his military duties. Surgeon-Lieutenant-Colonel W. H. Cadge, Civil Surgeon, is transferred from the Medical Charge of the Camp of H.H. the Lieutenant-Governor and Chief Commissioner to the Bareilly District. Surgeon-Captain A. E. Roberts, Civil Surgeon, is transferred from Bareilly to the Medical Charge of the Camp of H.H. the Lieutenant-Governor and Chief Commissioner as a temporary measure. The Queen has approved of the following promotions among the officers of the Indian Medical Service:—Surgeon-Lieutenant-Colonels to be Brigade-Surgeon-Lieutenant-Colonels: Augustus Napoleon Rogers-Harrison, Madras Establishment; William Reed Murphy, D.S.O., Bengal Establishment; and Charles Henry Joubert, Bengal Establishment. The Queen has also approved of the retirement from the Service of the under-mentioned officers:—*Bombay Establishment:* Surgeon-Colonel Robert Bowman and Brigade-Surgeon-Lieutenant-Colonel Selim Myer Salaman, M.D.

NAVAL MEDICAL SERVICE.

Inspector-General of Hospitals and Fleets Duncan Hilston, M.D., has been placed on the Retired List.

VOLUNTEER CORPS.

Artillery: 1st Edinburgh (City): Surgeon-Major J. J. K. Duncanson, M.D., to be Surgeon-Lieutenant-Colonel. *Royal Engineers:* 1st Lancashire: George Arthur Hawkins-Ambler, gent., to be Surgeon-Lieutenant. 1st Hampshire: Richard Emmett, gent., to be Surgeon-Lieutenant. *Rifle:* 5th (the Hay Tor) Volunteer Battalion the Devonshire Regiment: Surgeon-Lieutenant E. Haydon, M.B., to be Surgeon-Captain; Surgeon-Lieutenant J. Quick resigns his commission. 1st Volunteer Battalion the King's (Liverpool Regiment): Llewellyn Arthur Morgan, M.D., to be Surgeon-Lieutenant. 4th Volunteer Battalion the South Wales Borderers: John Howard-Jones, M.B., to be Surgeon-Lieutenant. 2nd Volunteer Battalion the East Lancashire Regiment: Surgeon-Lieutenant T. Holt, M.B., to be Surgeon-Captain. 1st Volunteer Battalion the Dorsetshire Regiment: Surgeon-Lieutenant H. F. T. Chambers resigns his commission.

VOLUNTEER MEDICAL STAFF CORPS.

The Manchester Companies: Surgeon-Captain I. J. E. Renshaw resigns his commission.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

A keen competition took place on Tuesday last, April 22nd, at the "Artists'" R.V. headquarters, Duke's-road, W.C., when a large number of non-commissioned officers and men of Volunteer Corps of the Home District competed for the Hamilton Challenge Bowl and other valuable prizes of the school. The winning team was composed of members of the Army Postal Corps—viz., Bugler Caney and Privates Perkins, W. Brecknall, and G. H. Haslewood, who obtained 423 marks out of a possible 480. The best man of the school was also found in the same corps, Colour-Sergeant Yardley coming out first with 114 points out of 120. The second team was composed of the newly formed bearer company of the Essex Volunteer Brigade, whose "turn-out" was extremely good; this team obtained 157 marks out of a possible 160 in drill. The subjects of the examination included elementary anatomy and physiology and first aid and stretcher drill. The examiners were Major Andrew Maclure (the President), Surgeon-Captains E. Hughes and G. Ferguson, Surgeon-Lieutenants C. Stonham and Berkley, Captain Lawther (statistical officer), and Surgeon-Captain R. R. Sleman (referee). The prizes will be presented at the inspection of the class on Tuesday, May 4th.

THE LATE MR. THEOPHILUS H. CLARKE.

It is fitting that one who was for so many years the chief clerk of the Army Medical Department of the War Office should not pass away without some tribute to his memory. Mr. T. H. Clarke died on Easter Day, 1897, at Beckenham, aged sixty-eight years. His duties brought him into intimate association with the heads of the Army Medical Department, and he was greatly respected and trusted by them all, and especially by the late Sir William Muir. Those who knew him best had entire belief in his integrity and simple-minded sincerity, for he was incapable of harbouring any mean or unworthy purpose; but, like so many men of this stamp in public spheres of occupation, he did not altogether escape, and could not hope to escape, calumny. It is, to borrow a phrase lately used, one of the perquisites of office, and, it may be added, usually a certificate also of a man's fitness for his post. Be this as it may, the late chief clerk was single-minded and untiring in promoting what he thought the true interests of the medical service and its officers, and we are assured he befriended many who never heard, and will never hear, of his work in this respect. He had many most sincere friends in the medical service to whom he was greatly attached, and, what, after all, is far better, a conscience void of offence.

THE HEALTH OF THE ARMY IN INDIA.

This still forms the subject of a good deal of discussion and correspondence, but without much advantage in the way of advancing our practical knowledge. There does not seem much to be gained by further reviewing the situation at the present moment. The Government of India, having received and considered Lord George Hamilton's despatch, have drafted some regulations in accordance therewith, and these have been submitted to a small committee composed of Colonel Badcock (quartermaster-general), Major Campbell (cantonment magistrate), and Surgeon-Major Williamson for consideration and report. The proposed regulations, when finally revised and approved by the Government of India, will be submitted to the India Office.

The annual mess of the Volunteer Medical Staff, organised by the Volunteer Medical Association, will take place at Limmer's Hotel on Wednesday next, May 5th, at 7.30 P.M. Sir William Mac Cormac, vice-president of the association and President of the Royal College of Surgeons, will take the chair. The Director-General A.M.D. (Surgeon-Major-General Jameson); Sir Francis Grenfell, G.C.M.G., K.C.B.; Surgeon-Colonel T. O'Farrell; and other distinguished guests have promised to attend.

The annual meeting of the Volunteer Medical Association will take place at 20, Hanover-square, on Wednesday next, May 5th, at 4.30. P.M.

Fourteen invalids for the Royal Victoria Hospital, Netley, left Egypt in the s.s. *Tabor* on April 15th.

On April 24th thirty-nine invalids were admitted to the Royal Victoria Hospital from Malta *ex* s.s. *Malacca*.

Correspondence.

"Audi alteram partem."

"THE CONDITION OF THE PORTSMOUTH SLUMS."

To the Editors of THE LANCET.

SIRS,—An annotation under the above heading in THE LANCET of April 17th concludes with the following statement: "Assuming that these facts are correct the reflection on the sanitary authority is indeed a serious one." In fairness to Portsmouth and the sanitary authority may I ask you to insert the following.

I have visited every place mentioned in the local paper quoted from, and I find that the article is grossly exaggerated throughout. All the measurements given are inaccurate, and in every case they err in making out the places smaller than they really are. The language used to describe them is exaggerated and sensational in tone, and the whole article gives a totally erroneous conception of the condition of Portsmouth. So far from Portsmouth being a "slummy" place, there are few towns in the kingdom of its size and antiquity with fewer slums. The fact that Portsmouth for the years 1894 and 1895 had the lowest death-rate of any large town in the kingdom (with the exception of Croydon) speaks volumes for the health of the town and for the thorough and efficient manner in which the sanitary authority has for years past been carrying out its duties.

I am, Sirs, yours faithfully,

A. MEARNS FRASER,
Portsmouth, April 27th, 1897. Medical Officer of Health.

SENILE DECAY: ITS CAUSES AND TREATMENT.

To the Editors of THE LANCET.

SIRS,—May I add a few words to the report of the meeting of the Medical Society of London in THE LANCET of March 27th (p. 882)? At this meeting Dr. Savill read a paper of unusual importance, and I came up from Cambridge on purpose to hear it and to discuss it. This paper, I venture to think, should not have been put in the second place, especially when a surgical paper of considerable interest took precedence of it. As it was, the important subject introduced by Dr. Savill was very inadequately discussed by subsequent speakers, who rose by permission after the normal time of closure and spoke in haste and under constraint.

Dr. Savill gave the results of a minute pathological research based upon 400 necropsies and some thousands of microscopic sections in support of more than one conclusion. One of these conclusions is that a certain arterial degeneration is normal and inevitable in old persons. This conclusion I am said to have contested. For me to contest any of Dr. Savill's conclusions would be absurd; on the contrary, I recognised by my presence at the meeting the great value of his labours, and I said that I had no minute and exact pathological evidence of my own to set, however diffidently, against that of Dr. Savill. I did but venture incidentally, and on general grounds, to demur to immediate acceptance of this proposition in an absolute form. I have seen many very old persons in whom the arterial coats and the blood-pressures seemed normal to the clinical judgment, and a few in whom the heart and arteries after death, as observed only by the naked eye, seemed as those of young persons. Such cases are rare, I admit, but still, if one such case be proved in a person of, say, over fourscore, senile arterial degeneration can no longer be called "normal." Again, I suggested that Dr. Savill's necropsies being made upon workhouse patients—made, that is, upon persons with whom life had gone hardly—cannot, perhaps, be taken as complete evidence. But I now regret that I made even these small reserves, as, owing to the brevity of the proceedings, they came forward in disproportionate relief against the expressions of great satisfaction and admiration with which in all respects I ventured to greet Dr. Savill's essay.

This gratitude I personally felt the more as I was led to hope that Dr. Savill has proved on the pathological side certain observations which on the clinical side had occupied me for some twenty years. At the Hunterian Society and elsewhere I have described certain cases as "Senile Plethora" or "Arterial Hyperpiesis," but on their clinical aspect only, as after long delay I had never been able to secure a necropsy on such a patient. These cases, I believe, will turn out to be of the same kind as those described by Dr. Savill as "arterial hypermyotrophy." If this be so, I venture to hope that the description of a symptom-group of great practical importance, now fully recognised for the first time, will be placed on the firm basis which in my reports was lacking. I read with much interest that Mrs. Garrett Anderson has described similar cases from her own experience.

I am, Sirs, your obedient servant,

Cambridge. T. CLIFFORD ALLBUTT.

"RIGHT-HANDEDNESS."

To the Editors of THE LANCET.

SIRS,—Dr. G. Archdall Reid seems thoroughly convinced that acquired characters are not transmissible. This is a much disputed point, as to which there is room for difference of opinion. Individually, I strongly incline to the views of Herbert Spencer rather than to those of Weismann on this subject. In support of his opposite views Dr. Reid says: "Every man individually *acquires* the faculty of language and of bi-pedal progression in an erect posture; neither of these is instinctive or inborn, and therefore transmissible, and both result from the fact that the one generation acquires them by imitation from the preceding generation." This is a very dogmatic statement, against which much may be said. In your report of my first Lumleian Lecture[1] there is recorded a case of deferred and untaught speech which is adverse to this opinion. On mentioning this case many years ago to a distinguished physician (Sir Richard Quain) he informed me of a closely related fact. "His eldest daughter up to the age of two years had not walked a step, or even tried to walk, when one day he put her down in the standing position, and to his great surprise as well as to that of the nurse she walked from one side of the room to the other. This also was an untaught act, as there had been no previous trials and failures." The above sentences are quoted from my book, "The Brain as an Organ of Mind" (p. 607), and in the same work there is a section (pp. 561, 562) entitled, "Deferred Primary Automatic Movements," in which it is pointed out, in reference to lower animals, that "much difference exists among different animals as to the degree of perfection *at the time of birth* of these inherited cell-and-fibre connexions, and, therefore, similar differences exist among such animals in regard to their power at birth of executing the several movements with which such nervous mechanisms are in relation."

I am, Sirs, faithfully yours,

Manchester-square, April 25th, 1897. H. CHARLTON BASTIAN.

"PREMATURE BURIAL."

To the Editors of THE LANCET.

SIRS,—Permit me to make a remark in relation to your observations in an editorial article in THE LANCET of April 24th on a passage attributed to me in inverted commas, describing the test of death by means of a vessel filled with water placed on the body of the supposed defunct. I have never seen the paper from which these words are taken. Some two or three months ago a literary acquaintance called on me to ask for any information I could give him on the subject in question. I learned from him that he was wishing to write something on the subject, and I was not aware that it was an "interview" or that my name was to appear. I remember that I mentioned, first, the well known value of the ligature with regard to blood circulation and other usual tests, and finally named, as of secondary value, that now under consideration. About a month ago I learned by accident that my name was appearing in some journal abroad in connexion with this subject, but I have never been able to ascertain whether any publication of my suggestions had taken place or not until my perusal of your article.

It may be appropriate to state here that in the form of

[1] THE LANCET, April 3rd, 1897, p. 933.

death certificate which I drew up some years ago for use by the Cremation Society the examination of the dead body and its personal identity is especially required from the medical man who certifies. I enclose you a copy, and will add that it met with the approval of the House of Commons Select Committee on Death Certification, and was by them recommended to take the place of the form at present employed. My approval of the French system as superior to our own is, I think, quite justified; the neglect of its requirements in practice, if it exists, is simply due to a defective administration of the law.

I am, Sirs, yours truly,

April 28th, 1897. HENRY THOMPSON.

"LUNACY IN EGYPT."

To the Editors of THE LANCET.

SIRS,—In an annotation on "Lunacy in Egypt" which appeared in THE LANCET of April 24th you state that "Dr. Warnock has been informed that some lunatics are kept in Damascus in stone cells, with chains round their necks." I can testify from personal observation that five years ago this form of treatment was actually in force in Damascus. In 1892 I visited the "lunatic asylum" in that ancient city and noted the following state of things. The institution consisted of a series of one-storeyed buildings surrounding a central yard, open to the air, which at that height (691 metres) is often very cold. There were seven cells opening on this yard, four double and three single. The single cells measured 8 ft. by 10 ft. They were built of stone, with stone floors, and the drainage system was simple, consisting as it did of a hole in the centre of the floor leading into a drain communicating to a cesspool (probably overflowing into the streams which run through the town and supply its drinking water). The floor was covered for half its extent by boards on which the patients lay. There was no furniture of any kind in the cells. In these seven cells were eleven patients—the term is very applicable—three or four of these were chained by the neck and legs to the wall. They appeared in great misery and imperfectly fed. No doubt they were dependent on charity for their support, and charity, even in a Moslem city, when it has filtered through the hands of Turkish guardians, is not very satisfying to its recipients. I need hardly add that these cells were very dark, being only lighted from the upper part of the doorway, which was built in the same way that stable doors are built here, and the smell was awful. These patients were probably all more or less violent, chronic maniacs, and such like, as the less troublesome lunatics in these countries are always kept by their relatives at home—and naturally. It was a dreadful and degrading sight, and made one shudder to think that man could become so like a wild beast.

So much for Turkey; but I was told a few years ago that in Greece an Englishman who had become acutely maniacal was treated in very similar fashion, being placed in a cell with an iron gate, through the bars of which his food was pushed, and the straw on which he lay raked in and out, and from this treatment he was with great difficulty rescued to be brought home to England. No doubt the state of things I witnessed at Damascus in 1892 has existed for centuries and will persist as long as the Turks hold Syria, but it can hardly be wondered at, under the circumstances, that, as Dr. Warnock says, "some Syrians are brought to Egypt on purpose to obtain 'admission' to the Cairo asylum."

I am, Sirs, yours faithfully,

April 24th, 1897. W. A. WILLS.

"THE QUESTION OF THE SECOND OVARY IN OVARIOTOMY."

To the Editors of THE LANCET.

SIRS,—The points raised by Mr. Clement Lucas in his letter in THE LANCET of April 24th are both interesting and important. I think most men will agree that the right treatment was adopted in removing a slightly cystic second ovary in a woman forty years of age. I go further, and say that in *all* cases of ovariotomy near or after the menopause the second ovary should invariably be removed, whether it looks healthy, cystic, or atrophied. With regard to the case of a woman, aged twenty-five years, whose second ovary contained a cyst the size of an orange, it seems to me that instead of leaving it alone it would have been better either to have removed it altogether or to have excised the cyst and left the ovary—a plan I have successfully adopted in several similar cases.

I am, Sirs, yours faithfully,

WILLIAM DUNCAN, M.D. Brux., F.R.C.S. Eng.

Harley-street, W., April 26th, 1897.

To the Editors of THE LANCET.

SIRS,—I read with interest the letter on the above subject from Mr. Clement Lucas which appeared in THE LANCET of April 24th. The opinion of a surgeon to a great medical school always deserves careful consideration. I cannot, however, say that I agree with Mr. Lucas's conclusions, as they do not accord with my own experience, dating from 1877, of a very large number of ovariotomies performed by myself and my colleagues at the Samaritan Free Hospital for Women and Children. Mr. Lucas holds that little *surgical* training is requisite for ovariotomy. It would have been more correct to say that not very much *anatomical* training is requisite; yet such a statement might do harm. The relations of the tumour to the pelvic viscera, the ureters, and the great vessels must be well understood by the beginner. Few operations test a man's surgical capacity better than that in question. I have known of terrible results due to an operator committing the grave error of making too light of an easy case or mistaking an innocent semi-solid ovarian tumour for a malignant growth, closing the wound and letting the patient die from hæmorrhage. Mr. Lucas is, on the other hand, much to be commended for looking on double ovariotomy as serious even when imperatively needed. My own views on the question will be found in a contribution to THE LANCET[1] entitled "Two Cases of Ovariotomy Performed Twice on the Same Patient." In 1889 I removed a papilloma of the right ovary from a woman aged fifty years. The left ovary, as I noted at the time, was elongated and atrophied. I considered that its removal was not justifiable, and I remain of the same opinion. The disease recurred in 1894 in the remaining ovary, which I took away without trouble. I wrote in the above paper: "Had I removed the flat, atrophied, apparently healthy ovary in 1889 I should have spared both myself and the patient much anxiety and two troublesome complications, which both recurred at and after the second operation. Yet surgeons are not prophets, and the chance of so atrophied an ovary becoming diseased seemed slight in 1889. The surgeon should hesitate to remove a sound organ on the strength of a theory." By "theory" I meant that of Pfannenstiel quoted in my contribution. Sir Spencer Wells declared at a meeting of an American society in 1888 that "if there is no suspicion of disease I do not remove it (the second ovary)." Howard Kelly's statistics support this principle.

When the second ovary is clearly diseased the case is quite different. The further development of a cystic tumour is all but certain, and is an intolerable annoyance to the patient. Cystic disease is not very difficult to diagnose when the ovary has grown to the size of a walnut. "A cyst as large as an orange" is pathologically, clinically, and surgically a tumour, and should be removed. I regret that Mr. Lucas should write down his opinion that when both ovaries are removed "a woman from that time forth is an unnatural monster cut off from the next generation." I know of a considerable number of patients where I and my colleagues have thought it right, on the above principles, to remove the second ovary, and not one of them is in any sense an "unnatural monster." Such a term might as well be applied to any spinster or any married woman sterile from uterine disease. The troubles of a premature menopause are far more tolerable than the worry and danger of recurrence of cystic disease in the remaining ovary. As for certain severe neuroses, they are known after the simplest unilateral ovariotomy.—I am, Sirs, yours faithfully,

ALBAN DORAN, F.R.C.S.Eng.,
Surgeon to the Samaritan Free Hospital for Women and Children.

Granville-place, Portman-square, W., April 26th, 1897.

To the Editors of THE LANCET.

SIRS,—The extraordinary sentences which open Mr. Clement Lucas's letter made me look carefully at the top of

[1] THE LANCET, Dec. 15th, 1894, p. 1415.

the page to see that dates were right, to make sure I was not reading a copy of your ancestor's journal of 1837. Is it possible that such a view can be held about any operation in surgery, much less concerning one about which there is always so much doubt till it is over? Yet there the words stand. A woman with both ovaries removed for cystic disease does not become an "unnatural monster"; nor is she cut off from the next or any other generation; nor does she stand in the least danger from this cause of being divorced.

Mr. Lucas is a lecturer on anatomy and surgeon to Guy's Hospital and an examiner in anatomy at the Royal College of Surgeons of England, and he records this in your columns this morning: "She was only twenty-five years of age and was found to have a large unilocular cyst of her right ovary, which contained ten pints of fluid, and connected with the left ovary was a cyst as large as an orange. The right ovary was easily removed and the other was left." The tumour which he removed was not a tumour of the ovary at all, but a tumour in the broad ligament, from which the ovary could easily have been separated by a skilled anatomist and left. The second tumour was probably the same, and if so, simple enucleation would have spared the patient the risk of a second operation and both ovaries. There is really no need to remove healthy ovaries at all; besides, it is getting dangerous and had better be carefully avoided. Deliberately to leave cysts is, however, very bad practice, according to my experience and belief.

I am, Sirs, yours truly,

Birmingham, April 24th, 1897. LAWSON TAIT.

To the Editors of THE LANCET.

SIRS,—It is difficult for some of those who are interested in abdominal surgery to accept with complaisant acquiescence Mr. Clement Lucas's views contained in his letter in THE LANCET of April 24th on the treatment of the second ovary in ovariotomy. The advice he gives there as I read it is, "where one ovary is extensively diseased and the other only in the early stage of cystic degeneration," unless the patient is past the child-bearing epoch, that only "the extensively diseased ovary" should be removed, for by removing both "the woman from that time forth is an unnatural monster, cut off from the next generation, and if married with the condition secreted" presumably "liable to be divorced"; and also "should the cystic degeneration increase rapidly there would be no great danger in operating a second time for the removal of the second ovary." I have always been under the impression that it was the duty of the surgeon invariably to ascertain the condition of the second ovary at the time of operation and unhesitatingly to remove it if it were found to be indubitably the seat of disease, although only in an early stage. I believed this to be an accepted surgical rule admitting of little latitude of choice.

If the second diseased ovary is removed, together with the more extensively diseased one, the operation is not thereby made of greater gravity to any appreciable extent. Why, then, should so favourable an opportunity be neglected of radically dealing with the whole disease before the complications, if hitherto absent, to which such tumours are liable, have a chance of developing, as they may do between the two operations if each ovary is dealt with at a separate time? For it is surely quite the exception to observe an ovary, definitely affected with cystic degeneration, enlarged, for example, "to the size of an orange," as in Mr. Lucas's case, remaining in a resting state; the large majority increase steadily, although their rate of growth may vary widely. Moreover, should any patient be subjected, except for most adequate reasons, to the discomforts and risks of a second operation—an operation which, however Mr. Lucas may minimise it as a surgical procedure, still remains a laparotomy, one that certainly few would care to submit to oftener than necessary? Then is every woman who has had the ovaries removed of necessity "from that time forth an unnatural monster, cut off from the next generation"? I for one should be sorry to believe it. Moreover, her connexion with the next generation may have already been secured if she has borne children. That menstruation often continues after double oöphorectomy is a well-established fact. From my own observations I am convinced that the female temperament is much less influenced by this operation than is generally supposed to be the case; certainly to an infinitely less extent than the male temperament by the corresponding operation. Even when the second ovary left, because normal to all appearance, it often in turn undergoes cystic degeneration and the patient has a second time to undergo ovariotomy, and occasionally troublesome complications arise when pregnancy closely ensues upon ovariotomy, as in a recent case under my care where I operated upon a partially irreducible ventral wound-hernia, causing great inconvenience, which had occurred during the pregnancy and was greatly aggravated by the enlarged uterus.

The medico-legal aspect of Mr. Lucas's supposed case, where a woman marries having concealed from her husband the fact that a double ovariotomy had been previously performed upon her, is only of collateral interest and relatively unimportant. But I cannot see that the subterfuge is much less to conceal the fact that one ovary has been removed and the remaining one is known to be cystic "to the size of an orange," as in Mr. Lucas's second case, than to suppress the fact that both ovaries have been removed. Possibly the suitor of such a patient, if possessed of some medical knowledge, might think the latter the lesser ill.

I am, Sirs, yours truly,

J. H. DAUBER, M.B., B.Ch.Oxon., M.R.C.P.Lond.,
Assistant Physician, Hospital for Women, Soho.
Charles-street, Berkeley-square, W., April 27th, 1897.

EPILEPSY AND MARRIAGE: A SUGGESTION.

To the Editors of THE LANCET.

SIRS,—I venture to think that it will be a pity if the interesting correspondence upon the marriage of epileptics should close without some practical good. As a contribution to the theoretical and scientific side of the question the letters you have published have a value of their own; but, apart from this, we are not much nearer the actual facts as to the influence of marriage and epilepsy upon each other. There must be few of your readers who have not had opportunities of becoming acquainted with the history of one or more married epileptics and the effect, if any, on the offspring; and if we could induce you to receive, and your readers to send you, the family histories of cases which have come under their observation a store of facts would be accumulated of more use and practical value even than the instructive correspondence which has just closed.

I am, Sirs, yours faithfully,

April 26th, 1897. NORMAN PORRITT.

"THE MIDWIVES REGISTRATION BILL."

To the Editors of THE LANCET.

SIRS,—There having been some delay in the publication of my letter, which appeared in THE LANCET of April 24th, I wish to say that on April 14th Mr. Skewes-Cox, Member of Parliament for the Kingston Division (Surrey), requested me to supply him with a copy of my "Sick and Obstetric Nurses Bill," as outlined in my letter, and I therefore drafted a bill of nine clauses with schedules and sent it on April 19th to the hon. member, who is giving it his careful consideration. It is an adoptive measure, and would be administered by boards of guardians, county, district, and parish councils, or by voluntary nursing associations. Clause 3 renders it "unlawful for any person (male or female) to assume the title or to practise as a midwife, sick or obstetric nurse, without the supervision and control of a fully qualified and registered medical practitioner." Clause 4 provides for "a certificate of competency from a duly recognised teaching authority for every woman acting as sick, monthly, or obstetric nurse." Clause 5 makes it compulsory for boards of guardians to "adopt" the Act in default of other local authority. Clause 7 prohibits both sick and obstetric nurses "from prescribing or administering any noxious drug or using any surgical instrument (apart from those necessary to their calling) or signing any death certificate or certificate of still-birth or of illness for any club or benefit society, the penalty for any one of these offences being three months' imprisonment and dismissal by the authority under which she is acting." This clause would extinguish the female prescriber and abortion-monger once for all. Clause 9 deals with boards of guardians and the fees payable to medical men. These are all on the basis of the Consolidated Orders, but mileage is to be paid for above a mile from the medical man's residence. The schedules deal

with the administration of the Act, the training of the sick and obstetric nurses, their pay, &c., and I have suggested three grades of sick nurses, with six, eighteen, and thirty-six months' training respectively, their pay being £60, £80, and £100 respectively. Obstetric nurses with a minimum of three months' training to have £60 per annum, both classes being prohibited from accepting fees and gratuities from patients and their friends. The schedules also contain rules and regulations for both the nurses and the medical men. The bill is intended as a compromise, and is drafted on the principle that its working would be largely carried out by voluntarily nursing associations, with "grants in aid" from boards of guardians and local authorities.

I am, Sirs, yours faithfully,

April 27th, 1897. ALEX. MCCOOK WEIR.

"NEW SANITARY BY-LAWS FOR LONDON."

To the Editors of THE LANCET.

SIRS,—In your commentaries upon the proposed new sanitary by-laws of the London County Council in THE LANCET of April 24th you criticise By-law 7, in reference to gulleys being placed outside buildings and waste-pipes discharging over them, saying on page 1165, "With new buildings there can be no difficulty," and again, "New buildings must not be allowed to offer any difficulties." If reference be made to the London Building Act, 1894, it will be found that new buildings erected in existing streets—and this applies to the whole of existing London—may be made to cover the whole of the ground area of the premises, and my experience is that this is taking place. I have a number of examples in which this has taken place during the two years the Act has been in force. If, therefore, under the Building Act, it is possible to cover in all the ground space, and owners avail themselves of the opportunity, how is it possible for the new sanitary by-laws to be enforced?

I am, Sirs, yours faithfully,

JOHN F. J. SYKES,
Medical Officer of Health of St. Pancras.

Camden-square, N.W., April 26th, 1897.

"NOTES ON ONE YEAR'S SURGICAL WORK."

To the Editors of THE LANCET.

SIRS,—Mr. Symonds, in THE LANCET of April 17th, reports that of four cases of flat foot two were treated by excision of the metatarso-phalangeal joint, and that "by this means the inner aspect of the foot was shortened and a permanent arch was formed." I am wholly unable to see how such an operation can have this result. I could understand if it led to the *effacement* of an existing plantar arch, because it involves destruction of a joint necessary for proper action of the flexor longus pollicis muscle, which "is the real sustentaculum tali." I am here adopting the words of Mr. Barwell in THE LANCET of Jan. 30th, where, in another very happy expression, he speaks of the arch as "a by-product of function"; and I note them with satisfaction as expressing principles on which I have for many years been insisting in these columns, in "The Human Foot," and elsewhere. To those principles the operation recorded, and presumably recommended, by Mr. Symonds is altogether opposed.

I am, Sirs, yours faithfully,

Gloucester, April 23rd, 1897. T. S. ELLIS.

THE ALLEGED INCREASE OF INSANITY.

To the Editors of THE LANCET.

SIRS,—I have carefully studied the special report of the Lunacy Commissioners recently laid before Parliament and admit that insanity, as such, especially in lunatic asylums, may possibly not have increased so much as the number of registered lunatics. I also thoroughly appreciate the thirteen reasons put forward by the Lunacy Commissioners to account for the increase in the number of insane persons; but still it cannot be denied that in thirty-seven years the number of lunatics has increased from 37,762 to 96,446, and will probably continue to increase. Even if these numbers do not constitute "a serious menace to the race," there still, according to my views, remains to the State, and especially to so rich a State as England, the right and duty to seek out and adopt measures for the purpose of limiting as much as possible this increase of insanity, more especially as pauper lunatics will probably, as time goes on, make still further claims to assistance. The thirteen reasons brought forward by the Lunacy Commissioners to explain away the continual increase in the number of lunatics do not take into account heredity and abuse of alcohol. These chief causes for the breaking out and further increase of mental disorders remain unchallenged, and as long as they are not combated by the State the number of lunatics, together with mental disorders, will continue to increase. Most scientific specialists in England will be disposed to concur in these views.

I am, Sirs, yours faithfully,

DR. F. SCHLANGENHAUSEN.

Villach, Carinthia, April 20th, 1897.

HOSPITAL ABUSE.

(BY OUR SPECIAL COMMISSIONER.)

VIII.—THE ROYAL LONDON OPHTHALMIC HOSPITAL.[1]

The Crowd of Patients and Students from all Parts of the World.—The Guinea Fee Limit.—The Difficulty of Dealing with Poor Patients willing to Pay.—A Partial Check on Abuses.

IT is a general complaint in the provinces, but more especially in the smaller towns, that the London hospitals compete disastrously, not only with the local general practitioners, but even with the consultants. Where there is a serious illness or the necessity for an important surgical operation, the patient often has not sufficient faith in the ability of the general practitioner and shrinks from the expense of applying to a consultant. Perhaps also his faith in the provincial consultant is hardly any firmer than his faith in the provincial general practitioner. Hence the tendency, which easy railway communications have greatly increased, to go to London for superior advice. At Leeds, for instance, I was told of a case of a boy who suffered from tuberculosis of the foot. His parents had heard that Sir James Paget was attached to the staff of St. Bartholomew's Hospital, so without further inquiry the boy came up to London. He was under the impression that he would at once be seen and cured by this eminent surgeon. On reaching London he presented himself at St. Bartholomew's Hospital and forthwith asked to see Sir James Paget. The attendants expostulated in vain. The boy took a seat and patiently remained there for four hours. He returned the next day and for several days, and it took some time before it was discovered that the money spent in the journey to London would have sufficed to pay for expert advice in Leeds.

Of the various diseases for advice for which patients can easily come up to London diseases of the eye hold a prominent place. Generally there is no immediate urgency, so that the patient can select his own time for the journey, and as his general health is not impaired he can travel without risk or inconvenience. The temptation in those cases to go to London is all the greater, as the Royal London Ophthalmic Hospital enjoys a world-wide reputation. This was the first institution of the kind founded, not merely in England, but in Europe. It was established in 1804, and then called the "London Dispensary for the Relief of the Poor Afflicted with Eye Disease." The following year the hospital was opened, and during the first twelve months over 700 patients were treated. In 1821 the foundation-stone of the present building in Moorfields was laid. The number of patients, however, increased so rapidly that a new wing had to be added in 1869, and now a special appeal is made for the purpose of erecting a still larger and more suitable building in the City-road. In 1895 there were 28 474 patients treated at this hospital, an increase of 1982 on the previous year. Of this number 2184 were in-patients, of whom 825 were operated on

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Sept. 26th, 1896, Plymouth and Devonport; (2) Oct. 10th, 1896, Exeter; (2 *continued*) Oct. 17th, 1896, Exeter; (3) Oct. 31st, 1896, St. Thomas's Hospital, London; (4) Nov. 14th, 1896, Liverpool; (4 *continued*) Nov. 21st, 1896, Liverpool; (4 *continued*) Dec. 12th, 1896, Liverpool; (5) Jan. 2nd, 1897, Manchester; (5 *continued*) Jan. 9th, 1897, Manchester; (5 *concluded*) Jan. 23rd, 1897, Manchester; (6) Feb. 6th, 1897, Leeds; (6 *concluded*) Feb. 13th, 1897, Leeds; and (7) April 17th, 1897, Coventry.

for cataract. The total attendance of out-patients amounted to 131 450 visits, giving an average of more than 400 patients for each working day. Nevertheless this does not suffice, and no inconsiderable number of patients have to be turned away unrelieved. The fact is that the Royal London Ophthalmic Hospital is known to be one of the best schools in the world for ophthalmic surgery. The most eminent ophthalmic surgeons have been members of the staff or students at the hospital, and this reputation is not merely national, but international. Many Germans and Frenchmen come to study at this hospital, as do hundreds of Americans. One of the latter recently said: "We in America think no ophthalmic surgeon can hope for salvation unless he has visited Mecca once." Of course, the Royal London Ophthalmic Hospital is the Mecca in question. Now medical men can scarcely complain if the opinions they entertain are also shared by their patients. The latter hope to obtain the advice of the most eminent visiting surgeons, and know that the assistants and house surgeons are also all highly qualified, some having served on the staff for six or seven years. Patients come from all parts of England and also from abroad and from the colonies. Many patients come from Australia, New Zealand, and the Cape. They hoard up all they can so as to pay for the journey, in the hope of preserving their sight. A large number of medical men have been trained here so as to set up independent centres elsewhere; but this generally fails to divert the current that flows towards the parent institution. A short time ago an artisan arrived from Peru. Possessing hardly any money, he had to work his passage over. It is, however, noted that there are fewer patients from towns where there exists an ophthalmic surgeon of undoubted ability. Some such English provincial towns were mentioned to me; while from other towns, likewise mentioned, where the local ophthalmic surgeons do not enjoy such high repute, a great number of patients come to the Royal London Ophthalmic Hospital. From this it is inferred that the lack of skill on the part of local specialists is one of the causes of hospital abuse. For instance, not long ago a lady consulted the most eminent local ophthalmic surgeon of the provincial town where she resided. He told her that she must have glasses; that if she did not have glasses she would have strabismus and many other evil consequences would ensue. The lady consulted this surgeon several times. He applied atropine four times and in all devoted five hours to the examination of her eyes, but finally had to confess that he could not find any glasses that would suit her. In despair the patient came up to London. The case was difficult, but nevertheless in an hour and a half at Moorfields all the difficulties were overcome, and the suitable glasses provided. Patients cannot be blamed for going where they obtain the best results; and if these patients are not on the ground of poverty entitled to receive such advice, many will not hesitate to pretend that they are poor.

It must be confessed that the methods adopted to prevent such abuse do not seem likely to be very effective. Till within the last three years no system whatsoever was enforced. If there was anything particularly suspicious in the appearance of a patient, he was referred to the secretary. Though there were on an average some ninety new patients per day, only three or four were thus sent up to the secretary. But this was not of much use; they were judged, not from inquiry, but from their dress, and generally seemed to be poor people who had to keep up appearances. Indeed, the dress test, especially when applied to women, is of very little value. A tidy, orderly woman, with good taste and very little money, will appear far more stylish and better dressed than a slatternly woman who has ample financial resources. Besides, mere questioning is scarcely a sufficient test. Thus, several years ago a man was sent up to the secretary for inquiry; he looked respectable and appeared as if he possessed money. In answer to questions he declared that he had lost all his money in South Africa in consequence of the defeat of the British troops at Majuba Hill, and held forth eloquently against Mr. Gladstone's Transvaal policy. The secretary was not altogether convinced; he put it as a matter of honour to the applicant not to take up the place of the poor if he had the means to pay, and then consented to admit him on the patient's own moral responsibility. This patient remained at the hospital a little time as an in-patient and then fell ill from some other disease, and therefore had to be removed to the London Hospital, where he died. It would seem, however, that as he felt his end approaching he was struck with remorse, for he made a will on his death-bed and left the Royal London Ophthalmic Hospital a legacy of £500.

Three years ago, with a view to preventing abuse, the services of a former officer of the Charity Organisation Society were permanently engaged to act as inspector when new patients presented themselves. There is no wage limit. The inspector must try to ascertain whether the applicant can afford to pay a guinea, and, if so, he must send him away. In the course of the year 1895 he thus sent away no less than 823 patients, most of whom admitted that they could pay a guinea. During the previous year 412 applicants were refused admission. They were, for the greater part, people who went for glasses. One among them was a lady who said her husband was a clerk, but the inspector ascertained that the clerk received £300 a year. A good many clerks and persons in similar occupations go to the hospital. If they are in receipt of but a small salary they will very readily give the name and address of their employers. If, on the other hand, they are in receipt of a good income they are ashamed to mention their employer's name for fear that inquiries should be made. Under those circumstances they generally complain about the inquisitorial character of the proceedings and go away in disgust. Patients who go with a practitioner's card are examined like all other patients, unless they are specially recommended to one particular surgeon; in that event the matter is left to the discretion of the surgeon in question. Then there are patients who have been to the hospital some hundred times. These could afford to pay a few guineas, but certainly could not pay a hundred guineas. Patients from the provinces who possess some means generally come up to London to privately consult an ophthalmic surgeon, and after having paid a few guineas for such consultations find they cannot afford the cost of an operation. Under these circumstances they are admitted at the Royal London Ophthalmic Hospital. Others, who could pay a general practitioner, come for the special advice they could not obtain for less than a guinea. It must be borne in mind that no class of patient gives so much trouble, and that the guinea and even the two guineas fee is very often but a small remuneration in comparison with the trouble occasioned. A difficult case may take two hours to investigate. Half an hour is given at a time to each eye and this is done in stages. A very simple case for spectacles will take twenty minutes, and the general practitioner, even if he is competent, cannot afford to give twenty minutes for a half-crown fee, particularly as the case may require not twenty minutes but a couple of hours. Many patients think that they only want a pair of spectacles, and are quite surprised to find that there are serious difficulties and complications. Numerous patients suffer from persistent headaches due to errors of refraction. It is then necessary to estimate the optical errors, and the case can scarcely be dealt with in less than three quarters of an hour. It is not reasonable to say that because patients can pay 2*s* 6*d* they should be referred in such cases to a general practitioner.

The great difficulty is to know what to do with the patient who can afford, and is willing to pay, some ten guineas for an operation. Many people write to members of the hospital staff saying that they have neither the time nor the health to wait for hours in the crowded out-patients' ward and are anxious to be allowed to pay a small fee so as to avoid this hardship. But the leading ophthalmic consultants have to send away daily patients who pay the highest fees, simply because there is not time to see them all. Why should they still further neglect their rich patients so as to see at reduced fees poorer patients? Their natural tendency is to refer these poorer patients to the hospital, where, by the subdivision of labour, the work is more rapidly accomplished. This argument more particularly applies to the operation for cataract. A patient will come, pay his guinea, and will ask what is the fee for the operation. Perhaps he is told 100 guineas. Then he pleads and describes his poverty, and asks what is the very lowest sum charged to poor persons, and probably he is told 50 guineas. Thus a poor man once applied to one of the operating surgeons of the Royal London Ophthalmic Hospital, and explained that he did not like the idea of coming to the hospital. He had during a long life of toil saved £120 for his old age. Out of this he would willingly pay ten guineas if he could have the cataract removed at his own home. This,

he thought, was a very great sum to offer. It is impossible not to sympathise with such a man. He did not wish for charity, and yet no competent surgeon could undertake such an operation for such a fee unless purely as an act of charity. Then such patients appeal pathetically, and insist that there must be at least some younger surgeons who would perform the operation for about ten guineas. But no operator who is really worthy of the name could do this for so small a sum. Even for normal cases of cataract the patient must be visited twice a day for from five to seven days, then once a day for two weeks, and three or four visits should be paid during the fourth week. After that one or two more visits are required for working out the glasses. Thus the patient has to be seen some twenty times at the cost of from fifteen to twenty hours, so that the ten-guinea fee would barely exceed half a guinea per hour. But complications may arise. For instance, a case was mentioned to me of a woman who had almost recovered from an operation for cataract when she caught cold. This occasioned complications, so that the attendance had to be continued for two months, involving in all seventy-eight visits, and yet the operating surgeon had no claim for an extra fee. It will be seen, therefore, that fifty guineas is not an extravagant sum to charge, and yet the vast majority of likely patients cannot afford to pay this amount.

At the hospital, however, the position is quite different. Here the busy ophthalmic surgeon would undertake operations for five guineas which he would not accept in his private practice for fifty guineas. If the typical ten-guinea patient were allowed to give five guineas to the surgeon and five guineas to the hospital, a very pressing demand, I was assured, would be met. All the subsequent visits after the operation for cataract, which take up so much time, would be avoided at the hospital, as this is done by the house surgeon. The operator does not see the patient again for perhaps a week, and has little or no further trouble unless complications arise. The advantage of subdivision of labour in such cases is obvious; but would not abuses arise in this as they have arisen in the ordinary paying wards of the various hospitals? The public is apt to consider that where payment is accepted that payment is sufficient, and it would be difficult to persuade a person who has given ten guineas that he is the recipient of a charity. Those who could afford larger sums would naturally think it was of no use to give more. Still, it does seem absurd to refuse sums that are often offered and would willingly be given because these sums are not large enough to make it unnecessary for the patient to go to the hospital. It is because ophthalmic surgery is so expensive that many comparatively well-to-do people go to the hospital. Many out-patients go to the Royal London Ophthalmic Hospital for advice which is subsequently carried out by their private practitioner. This class also might be made to pay a small fee; but because they cannot pay a guinea they must pay nothing at all.

About twenty years ago the visiting surgeons used to receive some of their private patients in the dining-room of the hospital. These being for the most part City men found it more convenient to go to the hospital than to go to the West-end consulting-rooms. This accounts, perhaps, for the impression, which still survives in the provinces, that rich people can go to the hospital, and this may be the origin of some cases of abuse. On the other hand, it was pointed out to me at this hospital that the cases of abuse were sometimes very much exaggerated. Thus, a medical man in the North of Scotland recently complained that the wife of one of his patients had been operated on for cataract at the Royal London Ophthalmic Hospital. He said that this patient was a market gardener and a ship-owner. The hospital authorities consequently made inquiries, and they ultimately ascertained that the patient in question cultivated vegetables on half an acre of ground, and owned the sixtieth part of a fishing smack, but his best source of income and his real trade was that of a cobbler. Another case was shown me of a woman who was very well dressed and seemed to hold a good position, but on being hard pressed with questions she had to confess that her husband was a bankrupt.

Such, as far as I was able to ascertain by inquiries made at the hospital, is the present state of affairs at the Royal London Ophthalmic Hospital. Considering that the patients are not visited in their own homes, and that the only form of investigation to which they are subjected is the cross-questioning which they have to undergo at the hands of the inspector especially appointed for that purpose, it is obvious that cases of abuse could easily escape detection. Nevertheless, it is a satisfaction to know that every year some hundred applicants are turned away because it is found that they can afford to pay guinea fees.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Hydrophobia and the Muzzling Order.

TWO cases of hydrophobia have lately occurred in this town, in consequence of which a muzzling order for dogs in the midland district has been issued. Much annoyance is felt by the owners of dogs, but the value of the order cannot be questioned when the comparison of the risk to human life is considered. In another instance the occurrence of hydrophobia in a patient after being bitten by a cat has excited an amount of apprehension. Expert authorities do not deny the existence of rabies in cats, but as these animals generally do battle with their claws rather than with their teeth the evil consequences of inoculation do not so often happen. Some protection is necessary when cases of undoubted rabies occur, and the desirability of stamping out the disease must commend itself as an act of justice to the community.

Cycling Fatality.

The death of a professional cycle rider formed the subject of an inquest at the Victoria Courts on April 23rd. Mr. A. W. A. Harris, a well-known rider, when engaged in a race at the Aston grounds, fell heavily from his machine, the front wheel of which had collided with the hind wheel of a rider's cycle in front. The pace at which Harris was riding was stated at the inquest to be twenty-four or twenty-five miles an hour. The death, which happened in the hospital, was found to be due to fracture of the base of the skull. Some criticism has been expressed as to the danger of an asphalt track for cyclists, but it was shown that this was rough and not smooth, not even so smooth as a cinder track.

Hospital Reform.

A meeting was held on April 21st at the Grand Hotel under the auspices of the Hospital Reform Association, having been called by circular expressing the aims and objects of the association. A variety of opinions were expressed as to principles and details. The resolution carried was "that this meeting of the medical profession practising in Birmingham and the district are of opinion that the question of hospital reform should be dealt with without further delay by the lay managers and acting staffs of our various hospitals and dispensaries, and thinks the recommendations issued by the Hospital Reform Association for the better regulation of the out-patient and casualty departments are worthy of their close consideration." It was stated that Birmingham wanted the reform very badly indeed. Last year the number of people relieved in Birmingham, including in-patients and the patients of the West Bromwich Hospital and the General Dispensary amounted to something like 228,738. The general practitioners were advised to take the matter up for themselves if the authorities did not do something towards it. The subject is undoubtedly a great one to deal with; existing barriers of tradition and custom have to be broken down before the ground can be cleared for a change. The tendency of opinion is certainly in the direction of reform, towards which it is expedient that the public should be educated in their own as well as in professional interests.

April 27th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Hospital for Incurables.

THE twentieth annual report of the Mauldeth Hospital states that in November last the number of in-patients, including those at Walmersley, was 110, of whom 29 were males and 81 females, 37 of the latter being at the Walmersley Branch, near Bury, which is designated in full as the Robinson Kay Branch of the Northern Counties Hospital for Incurables. This branch home, to which female patients only are admitted, was a gift from Miss Kay as a memorial of

her parents and was opened seven years ago. The house is placed in extensive grounds on the uplands adjoining Summerseat, near Bury. Last year the income of the two homes, including a donation of £820 from the Hospital Saturday and Sunday Funds, was £5151, against an expenditure of £5553. Mauldeth Hall is a large country house, about five miles from Manchester, and was at one time the residence of the Bishop of Manchester, but it was given up for the more conveniently situated Bishopscourt.

Child Labour.

In his address at the Conference of the National Union of Teachers, held at Swansea on April 20th, Mr. Adliscot, the president, made some remarks on the subject of child labour that ought to be thoughtfully pondered by the people of Lancashire. "The operatives of one town alone, Oldham (our close neighbour), put away £200,000 for the annual week's holiday, while they sent their little eleven-year-old offspring into the mills to help earn it." ..... "In England we kill them by inches, and we do it in the interest of trade and in the fear of German competition, oblivious of the fact that—and here I quote the recent report of Sir Philip Magnus—'child labour has practically disappeared in German factories.'" He went on to speak of the evils produced by "this miserable half-time system" by which half the day is supposed to be given to education and half to toil. Health and morals both suffer. "Take the blackest among our own counties. Lancashire shows the lowest ratio of pauperism, and, in spite of this, the highest ratio of juvenile crime; but Lancashire is the home of the half-time system." One undesirable result of the women working at the mills from childhood is that they grow up and marry—as a rule, very young—without any knowledge of the art of cooking. Frequently enough little or no cooking is done at home, partly from want of time and partly from ignorance or dislike of trouble, and the cook shops supply the food.

Manchester Royal Infirmary.

At a meeting of the board of management of the Manchester Infirmary, held on April 26th, Mr. J. Whitehead said he had been requested by the sons of the late Mr. Thomas Roberts, who was for many years a member of the board, to state that they wished to endow a bed in the infirmary in memory of their father. The only condition attached to the gift was the significant one that the bed should be in an infirmary on the present site in Piccadilly. The chairman said the announcement was most welcome, and asked Mr. Whitehead "to convey to the sons of their old and valued friend Mr. Roberts an expression of the grateful thanks of the board for their generous proposal."

Clayton Old Hall.

Through the generosity of Lord Egerton of Tatton a most interesting and ancient mansion—Ordsall Hall—is being preserved for Salford, and will be used as a museum. The corporation have acquired the house and grounds of Clayton Old Hall, and it is said that the land is to be laid out as a recreation ground and public park. It was one of the residences of Humphrey Chetham, whose name, even to many outside Manchester, is well known in connexion with the Chetham College and Library.

April 27th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Edinburgh University.

THE statutory half-yearly meeting of the general council was held last week, Principal Sir William Muir presiding. The draft ordinance issued by the Universities Commission instituting a "Professorship of Public Health and Sanitary Science (to be called the Bruce and John Usher chair of Public Health)" was approved. The professor of this new chair is to have a salary of not less than £600. Mr. A. L. Bruce's bequest was "in acknowledgement of Pasteur's investigations." The number of medical students shows a marked falling off; the numbers are as follows: 1891-2. 1951; 1892-3, 1736; 1893-4, 1560; 1894-5, 1512; and 1895-6, 1455.

Edinburgh Royal Infirmary.

At the half-yearly meeting of the Royal Infirmary managers held this week it was mentioned that the more general use of antitoxins in the treatment of diseases was adding largely to the medical expenditure, one case of tetanus, which happily recovered, having required between £50 and £60 worth of the remedy.

Opening of the Summer Session.

The summer session of the medical classes in Edinburgh will open on Tuesday, May 4th.

Glasgow Medico-Chirurgical Society.

This society met on April 23rd. The chair was taken by Professor McCall Anderson. Dr. J. H. Teacher gave a microscopical demonstration illustrating the Varieties and Life-Histories of the Parasites of Malaria and Malarial Fevers. In addition to describing the forms and development of the parasite Dr. Teacher gave an account of his experience of malarial fever as met with in the southern districts of Spain, and remarked on the great practical importance of the examination of the blood in the differential diagnosis between the irregular forms of malarial fever and other febrile conditions with which such forms have much in common. Dr. Middleton gave an account of two cases of Beri-beri. The patients were young men (Lascars), and displayed the usual symptoms of the disease, including muscular weakness, absence of the knee-jerks, and œdema of the lower limbs; there was, however, no pronounced muscular wasting, no reaction of degeneration, and no cardiac hypertrophy, and the urine in each case contained albumin. Six other members of the crew—the men were sailors—had been similarly affected. Dr. W. K. Hunter gave an account of the Bacteriological Examination of the Blood. The microbe described by Pekelharing and Winkler was discovered in the blood of each patient, and cultures and microscopical specimens of the organism were shown to the society. In addition Dr. Hunter related the Results following the Inoculation of Rabbits with the Micro-organism, and showed specimens demonstrating the occurrence of Peripheral Neuritis in the animals subjected to this experiment. Dr. Barclay Ness gave an account of a case of Myxœdema occurring in a man the subject of organic heart disease. Repeated attempts to practise the thyroid treatment had to be discontinued in consequence of the development of febrile disturbance and of cardiac respiratory distress. The case proved fatal, and specimens demonstrating the histological changes in the thyroid gland, skin and other organs were shown to the society. In the thyroid gland, which only weighed 83 grains, there was an extensive new formation of fibrous tissue with marked destruction of the vesicles and distortion of their lining epithelium. The integument showed cell proliferation in the epidermis, and also in the neighbourhood of the blood-vessels in the cutis vera.

Glasgow Royal Infirmary.

The opposition to the official scheme for the re-building of the infirmary on its present site has now taken definite shape. A meeting of the profession for the purpose of considering the scheme was held on the evening of April 22nd, and though some difference of opinion was expressed with regard to the exact phraseology of the resolutions to be adopted, the meeting was unanimous in condemning the official scheme in so far as it contained proposals to increase the number of beds in the infirmary. The chair was taken by Professor Gairdner, who disclaimed on behalf of the promoters of the meeting any suggestion of antagonism to the Royal Infirmary or any desire to check public liberality or to divert the money subscribed to any other purpose than the welfare of the infirmary. Their sole desire was to secure that the funds raised in connexion with the Diamond Jubilee should be used to the best public advantage. By subsequent speakers it was shown that the present site of the infirmary was already overcrowded, and that the schemes providing an increased number of beds involved the erection of buildings which in their plan and arrangement outraged all recognised principles of hospital construction. The meeting adopted resolutions to this effect, and appointed a committee to press this opinion on the executive committee dealing with the official proposals.

Medical Appointments.

The positions of Professor of Ophthalmology in St. Mungo's College, Glasgow, and Ophthalmic Surgeon to the Glasgow Royal Infirmary, are vacant in consequence of the resignation of Mr. Francis Napier, M.B., B.S. Lond.

April 27th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Tuberculosis in the Dublin Dairies.

AT a general meeting of the Dublin University Biological Association held in the Museum Buildings, Trinity College, on April 8th, Dr. T. P. C. Kirkpatrick proposed the following resolution: "That this association views with the gravest concern the danger to the public health arising from the prevalence of tuberculosis among the dairy cattle, and is of opinion that vigorous efforts should be made to stamp out this disease and protect the community from this source of infection."—At a meeting of the Dublin Cowkeepers' Association, held on April 14th, the reassuring statement was made that, as the result of an examination of the city dairy cows now in progress, it was found that only four out of 1500 cows already subjected to examination were tuberculous. This examination was carried out by Dr. G. Burbridge White and Mr. Andrew Watson.

Election of Medical Officer to the Ballinasloe Workhouse.

At a meeting of the Ballinasloe board of guardians on April 14th no less than thirty-eight guardians were present, including Lord Ashtown, who was in the chair. After a closely contested election Mr. Duffy, of Kiltomer Dispensary district, was appointed.

Mater Misericordiæ Hospital, Dublin.

The medical board of this hospital has issued invitations to meet the football team at dinner at the Hôtel Métropole on Monday, May 3rd. The entertainment is being given in order to compliment the members of the clinical class constituting the football team in connexion with their recent triumph in obtaining the champion cup competed for each year by the students of the hospitals of Dublin.

Royal Medical Benevolent Fund Society of Ireland.

At the meeting of the committee of this society, held in Belfast last week, grants were made, from which it appears that the branch has given relief to the extent of £90 for the coming year. The treasurer reported a substantial increase in subscriptions in response to a circular issued to the members of the profession in Belfast. The annual meeting is to be held on May 5th.

The McGovern Hydrophobia Cure.

A curious case came before the Irish Master of the Rolls on April 24th. The guardians of the Newry Union, believing in the efficacy of the so-called "McGovern cure for Hydrophobia," in 1895 passed a resolution authorising the master of the union to take three men who had been bitten by dogs to Philip McGovern of Cavan for treatment. McGovern is a farmer and is in no way qualified as physician, surgeon, or apothecary. The Local Government Board, hearing of this, communicated with the board of guardians to the effect that the residence of McGovern was not a hospital or infirmary within the meaning of the Act 25 and 26 Victoria, Chapter 83. McGovern then applied to the board of guardians for £16 for his services to the three men and a girl who had been sent to him. The board, on Nov. 30th, 1895, deferred consideration of the payment, and in May, 1896, McGovern served them with a civil bill process for the amount claimed. The guardians decided not to enter any appearance to the action, and at the succeeding sessions a decree was granted for £16 and £1 1*s.* 6*d.* costs. A cheque was drawn by the guardians for £17 1*s.* 6*d.*, but before it reached the judgment creditor the decree was executed, and certain cows the property of the guardians were seized, and the amount claimed, with a further sum of £1 8*s.* 6*d.*, was paid by the clerk to redeem the stock seized. This action of the clerk was approved of by the guardians. The auditor, however, disallowed the £4 which had been charged for travelling expenses and surcharged the special defendants. The present action, brought by the Local Government Board, claimed that the special defendants (who passed the resolution) and the Newry guardians should refund £17 1*s.* 6*d.* to the credit of the union, and that an injunction should be granted restraining the guardians from acting in pursuance of the resolutions already referred to. The Master of the Rolls gave judgment in the terms asked for.

The New Hospital for Tyrone.

At a meeting of the promoters of the new hospital for County Tyrone, held last week in Omagh, it was announced that the subscriptions amounted to £4000, and as the old building is estimated as worth £2000 this would raise the funds to £6000.

Death of the Ex-President of Queen's College, Cork.

Dr. James W. Slattery, M.A., LL.D., ex-President of Queen's College, Cork, has just died at the College. He was appointed President in the year 1890, and his appointment at the time was a matter of surprise, as he was little known to the general public. He had been educated at Trinity College, Dublin, and afterwards was admitted to the Bar. Soon after he was appointed it was found that he was suffering from diabetes and Bright's disease, and owing to his continued ill-health he was retired at the end of last year, but as he was too weak to be removed he continued to reside in the President's house up to the time of his death.

Fatal Accident at a Hurling Match.

During a hurling match in the Cork Park a player received on his neck a blow aimed at the ball with a "hurley" and died within a very short time. It was found that two of the cervical vertebræ were fractured.

April 27th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Academy of Medicine.

THREE important communications have been made to this society by M. Chipault, the distinguished surgeon who has done so much good work as regards surgical operations upon the bony coverings of the cerebro-spinal axis. In the first of these papers he gave an account of his treatment of curvatures of the vertebral column such as scoliosis and Pott's disease by means of what he terms "une planche vertébrale," to which the patient is fixed by means of straps after reduction of the deformity under chloroform. The writer finished his paper by maintaining his priority for this treatment in opposition to M. Callot, for he himself gave an account of this treatment in 1895 at the Congress of Surgery, and in 1895 asked his various friends, and especially M. Callot, to make trial of it. It would be unfair to attribute the merit of this invention to M. Callot, for he did his operations at a much later date than M. Chipault. M. Chipault's second paper dealt with sacro-lumbar puncture. He himself considered that this operation would be a great resource in the future, not only for the tapping of the cerebro-spinal fluid, so as to arrive at a diagnosis in the case of meningeal tuberculosis by the finding of bacilli, but also for the injection by this route of therapeutic serum or other fluid. He published nineteen cases, of which two were particularly interesting on account of severe syphilitic complications. The third paper had for its subject the radical cure of perforating ulcer of the foot by the stretching of the plantar nerves. In seven cases he had met with only one failure. M. Doyen, a young surgeon, has brought out a new method for the extraction of large polypoid growths in the naso-pharynx. He does not remove them by means of snares or by means of cutting them away with forceps. He examines with his finger the region behind the soft palate, and rapidly tears out the growth without being disconcerted by the enormous quantity of blood which generally flows. As soon as the polypi are removed the hæmorrhage stops of itself. M. Doyen has operated on many cases and always with success. Four papers were read upon appendicitis, but this question seems to have lost its interest somewhat. MM. Mourtier and Granier contributed a paper as to the curious effects which static electricity produces in modifications of the human voice. A singer sitting upon an isolated stool coupled to the negative pole of a static machine was made to breathe the atmosphere, which was electrified by means of a brush electrode; after a short time, and very often at the first sitting, the voice became full and clear, the quality much more agreeable, and the voice was less rapidly tired.

The Medical Congresses.

The Obstetrical Society of France has been holding its annual meeting at Paris during the Easter holidays under the presidency of M. Charpentier. Two chief subjects were debated: (1) Fibroid Tumours during Pregnancy and Labour; and (2) Repeated Abortion. As regards the first subject, M. Kaiffer read a very complete and interesting paper.

Numerous observations had been made by various members of the society. The general opinion was that the right treatment was to wait and not to intervene except in cases of extreme urgency, when operation was advised after the method of Porro.—The Congress of Learned Societies met during the same week and passed a motion that the State ought to put no obstacles in the way of either the foundation or the working of manifestations of private charity. As a matter of fact, the founding of a private hospital is almost impossible, for those wills which bequeath sums for this purpose are almost always set aside by the State either to benefit distant inheritors or itself.—The Physical Society has just held its annual exhibition, the chief objects of interest of which were those connected with the x rays. On the ground floor M. Badiguet had set up a dark room which was a veritable hall of enchantment. To the hangings were attached skeletons giving out phosphorescent rays which were wonderfully indiscreet, for despite clothing they showed up in all their nakedness the innermost depths of the spectators.

An Error of Diagnosis.

At the sitting of March 17th the Court of Appeal at Rouen gave judgment in a trial involving the responsibility of a veterinary surgeon in a case which had been submitted to him. A little girl who was seated by the side of her parents was bitten in the face by a dog. The dog, the owner of which was unknown, was promptly killed and submitted for examination to the veterinary surgeon of the district, M. Vandescal. After a post-mortem examination, which showed that the stomach of the dog was perfectly empty and that the intestine contained nothing except two tapeworms, the veterinary surgeon decided that the dog showed no symptoms of rabies. Nevertheless, some time afterwards the little girl became ill, and died, so three medical men certified, from rabies forty-two days after the accident. On account of this the parents of the child brought an action for damages against the veterinary surgeon. They argued that he was really the cause of the death of their child because he had made a careless post-mortem examination and had assured them wrongfully and so prevented them from taking the necessary measures to have the child treated at the Pasteur Institute. The veterinary surgeon denied that there was any relation between the bite and the death of the child, and that what had been taken for rabies was in reality tetanus. He brought witnesses to show that the post-mortem examination had been carefully made and that there was nothing in it by which he could have diagnosed rabies. The Tribunal of Rouen acquitted him and the Court of Appeal confirmed the judgment. The judgment showed, all the same, that there is no doubt that the dog was mad and that the child died from rabies appearing after the usual period of incubation. But it affirms that nothing was proved to show that the veterinary surgeon had failed to observe the rules of his profession or that he had made any wilful mistake. The post-mortem examination was made in the usual way and the veterinary surgeon could only give a simple and not a circumstantial report.

Obituary.

Many deaths have occurred among the medical profession. Dr. Magitot, who was the founder in France of modern dentistry and has written many important works upon the development of the teeth, died very suddenly during an attack of angina pectoris. He was a member of the Academy of Medicine and had been President of the Society of Anthropology.—Dr. Carrier of Varennes has died suddenly under very painful circumstances. He had just given one of his patients a hypodermic injection of morphia and she was sleeping peacefully. The patient's daughter, seeing her mother so quiet, thought she was dead, and cried out that the doctor had poisoned her. Dr. Carrier was seized with a fainting fit, and fell, unfortunately striking his head against the mantel-piece. He died some hours afterwards, just at the time when the patient woke up much relieved.

Murderous Attack on a Medical Man at Toulon.

In the suburbs of Toulon an abominable assault has been committed upon the person of Dr. Barnier by a Corsican named Cesarine, who had a grievance against him and who had sworn to kill him in a vendetta according to the custom of his country. Cesarine shot at Dr. Barnier in the street, wounded him slightly, and then fled. The following night he broke into his house, and finding his way to the bed-room inflicted on him many cuts with a sword and then shot him twice with a revolver. The mother and daughter of Dr. Barnier, who were attracted by the noise, also each received one bullet from the revolver. The Corsican fled, while Dr. Barnier, previously wounded, was removed to the hospital, where it was found that the facial nerve was cut and his respiration was very feeble. During the night the would-be assassin came to the ward of the hospital right up to the bed and tried to finish his work, but the other patients gave the alarm in time. The condition of Dr Barnier is very serious. His assailant was arrested on the night of the following day after a regular fight with revolvers between himself and the police, in which he was seriously wounded in the head.

April 25th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

The Spread of Psittacosis.

IN THE LANCET of April 10th (p. 1058) I mentioned the outbreak of this disease in Genoa, where fourteen persons have already been attacked by it and eight have died—the last death being that of Signor Gavino, brother of the captain of the *Manilla*, in which the two infected parrots were brought from Brazil. Now Captain Gavino himself, his wife, and his daughter are under treatment for the same malady. The Uffizio Civico d'Igiene was not an hour too soon in its warning to the public against harbouring these domestic pets, as from being sporadic the broncho-pneumonia they convey has assumed almost an epidemic form. Meanwhile, the susceptibility of the parrot to pulmonary disorders—above all, to tuberculosis—is being put *en évidence* by the medical journals, most of which refer to the classic treatise on the subject by Dr. A. De Gordon y de Acorta, a physician of Havana. The malady, often hereditary in the bird, is invariably accentuated by the close confinement and the privations encountered during the voyage to Europe, where, again, even if it arrives in fair health it is for the most part exposed to insanitary conditions, under which it often contracts tuberculosis and broncho-pneumonia from proximity to human sufferers from these ailments. In Berlin the profession has long been alive to the danger of harbouring and petting the bird, the Veterinary School there having had 154 parrots under observation, and 54 of them having been found by bacteriological tests applied by Professor Eugen Fröhner to be labouring under advanced tuberculosis. The lesson, so familiar on the Continent, is worth repeating in the British Isles, where the parrot is imported from nearly every colony, tropical or sub-tropical, and where well-nigh every one of its 355 species is typically represented.

The Attempt on the King of Italy's Life.

A host of suppositions as to the motive and the mental condition of Acciarito, the would-be regicide of Thursday last, are in the air; but the "primo interrogatorio" of the police, the more its findings are considered, will suffice to reduce them to a very limited and very commonplace category. Passanante, who made the first attempt of the kind in the late autumn of 1878, was a fanatic, the victim of religious zeal. His was a form of "pazzia ragionante" (ratiocinative madness), and he believed that in striking a fatal blow at the King he was vindicating the Pope. He has been happily defined as a "Ravaillac basilisco" (an ophidian Ravaillac), and is now an inmate of the Asylum for Criminal Lunatics at Montelupo in Tuscany, where his condition in October last was described in THE LANCET[1] under the heading of the "Belva Umana" (human wild beast). But Acciarito, so far as ordinary tests can be relied on, is clearly no lunatic. One of his first admissions was that he was "affamato" (starving), and as this was succeeded by others it became more and more evident to the "judice istruttore" (Juge d'Instruction) that he had to deal with an anarchist of the now familiar type. Accomplices, indicating conspiracy, have already been found and arrested, while the lethal weapon he bore had the same insignia as that of Caserio, the murderer of President Carnot. It is of very fine workmanship and

[1] THE LANCET, Oct. 31st, 1896, p. 1273.

temper, the twisted handle having wound round it a steel wire, and on one arm of the hilt there is engraved the letter A, signifying "anarchist," and on the other a cross +, signifying death. It will not be till the first days of June that the regular trial will begin; but meanwhile the presumption seems to be almost inevitable that in Acciarito we have a replica of Caserio, whose example in avenging "himself and humanity" on the person of the "bourgeois President" seems closely followed by his Roman disciple, whose victim was to have been the "popular king." Caserio, too, was "affamato." He had not broken bread before he committed the fatal deed, and "hunger," as Acciarito remarked to the judge, "è una cattiva consigliera" (is a bad councillor). No doubt the criminal anthropologist will intervene at the trial, as he did at Caserio's, and it is well that science, even tentative science, should have its opportunity of throwing light on phenomena which are becoming all too flagrant—indeed, periodical enough to be well-nigh systematic. Coincident almost to an hour with the attempt on King Humbert there was one on the President of the Republic of Uruguay. Anarchic conspiracy, it would seem, aims at the suppression of authority in general, with a fine indifference to institutions, whether monarchical or republican. One element, I may add, in Acciarito's purview did not exist in Caserio's. Even had his deadly purpose succeeded he would not have been capitally punished—the guillotine or death by hanging having been abolished in Italian criminal law. It may be time for Italy to revise that innovation and return to the old system, just as Switzerland has had to do. Her statistics demonstrate only too eloquently of how efficacious a deterrent of homicide she deprived herself by the abolition of the death-penalty.

"Radiografia Roentgen."

The Italian schools have enthusiastically taken up the "Roentgen rays" as an auxiliary to diagnosis, treatment, and instruction—none with greater effect than the University of Pavia. Dr. Giuseppe Cattaneo, surgeon-in-chief in the Ospedale Civico of that city, having removed an entire bone from the left inferior extremity of a boy patient, thereafter placed him in the Istituto Fisico of the University, where, under the superintendence of Dr. Petinelli, were initiated, with the help of the Roentgen rays, a series of object-lessons on the reproduction of the lost bone. The organic functions of the osseous tissues as illustrated in the reproductive process were watched and registered from time to time at stated intervals by Professor Petinelli's colleagues and the University students, and the value of the Roentgen rays in surgical diagnosis and treatment, and equally in surgical teaching, was vindicated in the most striking manner. Professor Petinelli's official report of the case, supplemented by illustrations of the successive stages of the reproduced bone will be awaited with interest.

Italy at the Twelfth International Congress of Medicine and Surgery.

Strong and steady efforts are in progress to make the Italian representation at the above congress as numerous and effective as possible. At a meeting just held here, under the presidency of Dr. Baccelli, an order of the day was passed inviting delegates of the several Schools of Medicine and "Accademie Mediche" to form local committees, and establishing a "Comitato Centrale" at Rome to promote the object in view. Of this central committee the president, elected by acclamation, was Dr. Baccelli, and its secretary, Dr. Ezio Sciamanna, Professor of Neuropathology in the Roman University and Director of the Clinique for Psychiatry in the University Institute. Facilities for reaching Moscow by rail were announced on the part of the Italian and Austrian companies, while the Russian companies liberally place at the disposal of the "Congressisti" a free return ticket from the frontier.

April 25th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Sporadic Influenza.

IN an article published in the *Klinische Wochenschrift* Dr. Lindenthal states that bacteriological investigations made during recent epidemics of influenza showed that the contagion of influenza is contained in the fresh and still moist secretion of the nasal and bronchial mucous membrane. It is therefore reasonable to suppose that during the periods when the disease is not epidemically prevalent the contagion is lying dormant in the human organism, and there finds all the conditions necessary for its proliferation. Support is given to this view by the fact that the sputum of persons who have suffered from influenza, especially those who are also the subject of pneumonia, has sometimes been found to contain influenza bacilli even several months after the clinical symptoms of the disease have disappeared. Such persons may infect susceptible individuals, and in the absence of any explanation of the way in which the disease was perpetuated its origin might appear to be spontaneous and independent of previous cases. Dr. Lindenthal has made bacteriological examinations in eight cases of influenza associated with pneumonia. In all of them the bronchi were affected; the ciliated epithelium was either destroyed or elevated by pus cells into which influenza bacilli had penetrated; no bacilli were ever found in the blood. In three cases there was an induration of the pneumonic centres, the alveoli being filled with fresh connective tissue, and the peri-bronchial and peri-vascular tissues being thickened. In these centres the bacilli were few in number and were found only in the pus cells. The exudation in influenza associated with pneumonia may be purulent, fibrinous, serous, or hæmorrhagic. The influenza bacillus is chiefly characterised by being immobile, by growing exclusively on hæmoglobin culture media, and by not being stained by Gram's method.

Anæmia and Enteroptosis.

Anæmia and chlorosis are among the most important concomitants of enteroptosis, and according to Meinert chlorosis arising under such circumstances is due to irritation of the sympathetic centre controlling the formation of hæmoglobin which goes on in the spleen. Dr. Buxbaum however, has recently published an article in the *Fortschritte der Hydrotherapie* wherein he ascribes this symptom to irregular blood distribution—namely, to what seems to be a passive hyperæmia, without change either in the total quantity of the blood or in its quality. The normal peristaltic movement of the intestine assists greatly in maintaining the circulation in its vessels. A cold hip-bath influences the distribution of the blood by its effect on the splanchnic nerve, exercised both directly and by reflex action; after a time it causes contraction of the abdominal vessels, the consequence being withdrawal of blood from the intestine and the parenchymatous abdominal organs and determination to the parts of the body which are not immersed in the water. The undue accumulation of blood in the intestine in cases of enteroptosis is brought about by the impairment of the peristaltic movement, by the relaxation of the abdominal muscles, and by the inflections of the intestine itself. It follows, therefore, that treatment should be directed to increasing the tone of the muscular layer of the intestine, and one of the most efficacious among such measures is the cold hip-bath.

The Treatment of Epilepsy and Basedow's Disease.

Nine operations involving total and bilateral resection of the cervical sympathetic nerve have been described by Dr. Ullmann. Two of the patients suffered from Basedow's disease, three from well-marked epilepsy, one from chorea, one from tumour of the brain, one from hysteria and one from progressive paralysis, the latter having an epileptic attack at the time of the operation. In both cases of Basedow's disease the exophthalmos disappeared and the goitre was reduced in size; the tachycardia ceased in the one, but continued in the other. In the three cases of epilepsy the improvement was astonishing, for the fits never recurred.

The Medical Chamber.

A meeting of Vienna medical men will be held to-day in the rooms of the Medical Society, the business being to consider whether the Medical Chamber should continue its functions or should be abolished; 325 members of the Chamber will take part in the proceedings. When the Medical Chamber was founded the profession expected that it would accomplish great things as an executive organisation of medical men, and, indeed, the prospect seemed full of promise; but, like everything in Austria that is due to the initiative of the Government, the Chamber has become a purely bureaucratic institution, unrelenting to the medical men, but indulgent to the boards. For instance, the anxiety of the Chamber to be invested with the power of cancelling the diplomas of medical offenders has not failed to arouse

general dissatisfaction among the profession in Vienna, and the party antagonistic to the Chamber denounces this extension of its powers as an unwarrantable interference with personal liberty. This protest may appear astonishing in a country where political freedom is still in its infancy, and some suggestive comments on the question are made in a letter written by a medical man to a non-medical newspaper. The substance of his argument is that in acquiring the power of cancelling medical diplomas, either temporarily or permanently, and thereby debarring a man from practising, the Medical Chamber nominally exercises no more authority than the Legal Chamber, each in its special sphere; but in reality the two cases are by no means parallel, lawyers being much less affected by this disability than medical men. To be restrained from practice is no doubt a severe punishment for a lawyer, but he has the opportunity of making an income by assisting another lawyer. A medical man, however, is helpless without a diploma, and it is unjust that the Chamber should have the power of ruining him in this way. Furthermore, in the event of the Chamber being armed with this authority, will it have the assistance of the police in preventing advice being given to patients? Medical men who have committed offences against the laws of the land, and have consequently been deprived of their diplomas by the State, forfeit public confidence, but such will not be the case with those whose diplomas may be cancelled merely for transgressing the regulations of the Medical Chamber. In my next letter I will give some account of the proceedings at the meeting.

April 25th.

BUDAPEST.

(FROM OUR OWN CORRESPONDENT.)

Malignant Syphilis treated with Spermin.

AT the last meeting of the Budapest Hospital Association Professor Schwimmer announced that he had used spermin in six cases of malignant syphilis with very good results. He had chosen for this treatment only malignant cases in which it was impossible to carry out the routine mercurial treatment on account of the patients, in spite of the usual precautions, developing marked mercurial stomatitis as soon as treatment was begun. The last patient received twenty-five injections of the organic extract, which resulted in stopping the progress of the syphilitic ulcerations. Professor Schwimmer ascribes the beneficial effects of spermin to its property of improving metabolism.

Epilepsy Treated with Ovariin.

This case was published by Dr. C. Bodon in the columns of the *Orvosi Hetilap*. The patient was a girl, aged eighteen years, who had during the last four years undergone all sorts of medical treatment without any appreciable benefit. Considering that the patient developed the disease since she began to menstruate, and that her menstruation used to be very scanty and only of one or two days' duration, though she was not suffering from any disease which might have explained the diminution of the menstrual flow; considering, lastly, that Dr. Bodon had seen several instances where the different ailments connected with the climacteric and with menstrual troubles had readily yielded to the ovariin treatment, he resolved to give the ovariin a trial in this case. Before resorting to it he kept the girl under observation for a week, no medicine whatever being given. She had during this time three typical epileptic attacks and from two to five attacks of *petit mal* daily in addition. The day before the commencement of the treatment she exhibited eighteen of these slight attacks. She was given on the first day one tabloid (Merck), the daily dose being gradually increased to eight tabloids. On the second day she had one epileptic fit, but not any more fits during the whole time that the ovariin treatment lasted—i.e., fifty days. After this date ovariin was withheld for a week and large doses of bromides were given. She thereupon had three epileptic fits. Ovariin was again resorted to, and the patient remained free from epileptic fits during twenty-two days—i.e., up to the date of publishing the cases. The slight attacks (*petit mal*), however, did not subside except at the time corresponding to menstruation. Under the influence of the ovariin treatment menstruation became more copious and was of three days' duration. Dr. Bodon concluded that the ovariin treatment should be tried in all cases of epilepsy which appear to be connected with functional troubles of the reproductive organs.

Endemic of Tetany in Budapest.

It is known that tetany may sometimes become endemic, and outbreaks of this kind have been observed in Paris, Vienna, and some other towns. Up to the present time it has only occurred sporadically in Budapest, but it would seem that the disease has lately been assuming an endemic character in this town, no less than ten well-marked cases having been notified during last week. No explanation of the endemic is obtainable.

April 24th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Medical Schools Combine.

AT a special meeting of the Board of Regents of the University of the State of New York the faculties of the Bellevue Medical College and the New York University Medical College were consolidated, and will now be known as the New York University Bellevue Hospital Medical College. The determination to consolidate the colleges was arrived at by their governing bodies on April 5th. The advantages of the scheme were so apparent to both bodies that it required but three weeks to complete the preliminary negotiations. The Council of the University on March 17th laid before the trustees and faculty of the Bellevue College a statement of the benefits, both material and educational, that would arise from uniting the two institutions. Two days later the trustees of the Bellevue College unanimously decided to transfer the direction of the college to the University on the assumption by the latter of the obligations of the Bellevue institution to the city. These obligations were formally undertaken by the Council of the University last Monday, and it only required the consent given by the regents to give effect to the consolidation. The fusion of the two schools, one of which had an enrolment of 713 students last year and the other of 344 students, will make the new college one of the largest and most important seats of medical instruction in the United States. The total faculty will number 113. The facilities and plant of the united colleges will be equal to those of some of the best equipped schools in the world. The University owns buildings covering a frontage of 130 ft. opposite Bellevue Hospital. In addition to the college premises, the Bellevue trustees possess the Carnegie Laboratory in East 26th-street, presented by Andrew Carnegie about ten years ago; also there has just been purchased by the friends of Bellevue College a frontage of 150 feet in First-avenue, adjoining the Carnegie Laboratory. These two properties together would furnish ample building room for all the purposes of a great medical college. In length of existence the University Medical College is older by some twenty years than the Bellevue College. The project of establishing a medical department was first discussed in 1838, though it was not until 1841 that the scheme took practical shape. The first faculty elected comprised Drs. Valentine Mott, Granville S. Pattison, John Revere, Martyn Payne, G. S. Bedford, and John W. Draper. It has graduated 6700 *alumni*. The Bellevue Hospital Medical College was incorporated by a special Act of the Legislature in 1861. It has 4734 *alumni* scattered through this and other countries.

Suffering from the Overflow of the Mississippi.

The enormous floods that have led to the overflow of the Mississippi River have caused an amount of suffering that renders the event a national disaster. The President has sent a special message to Congress recommending a liberal appropriation for the relief of the sufferers. These are stated on reliable authority to be the most destructive floods that have ever devastated the Mississippi valley, the water being much higher than the highest stage it has reached before. From Marion (Ark.) north of Memphis, to Greenville (Miss.), a distance of more than 250 miles by river, it is reported that there are now at least fifty towns and villages under water, and a territory extending from 100 miles north of Memphis to 200 miles south, and from five to forty miles wide, is submerged. Hundreds of thousands of acres of cultivated soil, with growing crops,

are included in the submerged territory. In this section alone there are from 50,000 to 60,000 people whose property has been destroyed and whose business has been suspended. Growing crops have been ruined, thousands of cattle have been drowned, and the inhabitants of certain areas threatened with starvation. As a great majority of the sufferers are small farmers, they have thus been left entirely destitute and will be unprepared for work, even after the floods have subsided.

Medical Inspection of the Scholars of the Public Schools.

The New York Board of Health has appointed a large number of medical men as inspectors of the children who daily attend the public schools. The object is to prevent those who have symptoms of contagious disease from entering the school, the inspection being carried out at the school-house entrance. The first day's inspection resulted as follows: 140 children were found unfit for association with their schoolmates and sent home with notes to their parents informing them of the children's condition. Among these were 14 cases of diphtheria, 3 of measles, and 1 of scarlet fever; 35 cases of contagious eye diseases, 3 of mumps, and 1 of croup; of parasitic diseases there were 55 cases in which the head was affected, and 12 of the body; and there were 8 cases of chicken-pox and 8 of other communicable diseases.

Inspection of Meats Exported from America.

The new Secretary of the Interior has issued the following Order:—"From and after March 15th, 1897, all beef offered for transportation to European ports—whether fresh, salted, canned, corned, or packed, being the meat of cattle killed after the passage of the Act under which this Order is made—shall be accompanied by a certificate issued by an inspector of the department showing that the cattle from which it was produced were free from disease and that the meat is sound and wholesome; and in order that it may be determined whether all beef exported to European ports has been so inspected and found to be wholesome, it is further ordered that the meat of all other species of animals exported to such ports which for any reason does not bear the inspection stamps of this department shall be packed in barrels, cases, or other packages, which are legibly marked in such manner as to clearly indicate the species of animal from which the meat was produced. Meat which is not so marked, and which is not accompanied by a certificate of inspection, will be classed as uninspected beef and will not be allowed exportation to European ports."

Regulation of Dispensaries.

A law of the State of New York recently made, aims to correct the abuses of out-door medical relief, by requiring that all institutions which give that relief shall be under the rules and regulations of the State Board of Charities. This board recently inspected the dispensaries of the State, and it was found that there has been in the last decade a vast increase of these institutions. In the city of New York they number 115, and their statistical returns show that nearly 50 per cent. of the whole population receive medical treatment gratuitously. The State Board of Charities is a body which under the present Act will have complete control of the methods of out-door medical treatment in the State and will have power to give and revoke licences.

April 17th.

FOOTBALL CASUALTIES.—A member of the Ashton, Cheshire, team died on the 20th ult. from abdominal injuries received in a match on Good Friday between Ashton and Halsall.—In a League Second Division match on the 24th ult., at Blackpool, a player fractured his right arm.—While playing in a match at Tividale last week the centre half-back for the Great Bridge Club, Staffordshire, a player from Horseley Heath, sustained injuries from which he died two days afterwards.—On the 26th ult., at Caledonian-park, Holloway, during a match between the London Caledonians and Tottenham Hotspur Clubs, a player (the Caledonian left wing) fractured his right leg, and was removed to the Great Northern Hospital, Holloway-road.—In the course of a match at Stockport between two factory teams, a player, a collier, sustained concussion of the brain, and was taken to the Stockport Infirmary, where he died on Tuesday last.—On the same day a youth, aged fourteen years, also died in the same infirmary from injuries received while playing in a game with other youths.

Obituary.

JOHN MAGRATH, M.D., M.S.Q.U.I., M.R.C.S. ENG., L.S.A.

DR. MAGRATH, of Forest Row, Sussex, whose death occurred suddenly from cerebral hæmorrhage on April 10th, at the age of fifty-two years, was an able and highly esteemed practitioner. His medical education was commenced at Queen's College, Belfast, and completed in 1872 at University College, London, in which year he took his M.D. degree at Queen's University, Ireland, being first in honours and gold medalist in medicine and other subjects. At the conclusion of his collegiate education he was appointed, in August 1872, resident medical officer to the East London Hospital for Children, and later assistant physician and physician to the same hospital. In 1873 he was appointed assistant physician to the Metropolitan Hospital, Kingsland-road, a post which he held for two years, and also physician to the Metropolitan Dispensary. It was at first his intention to settle in London as a consulting physician, but owing to the sudden death of a relative in 1875 he was compelled to succeed to a practice at Forest Row, near East Grinstead, where he practised until his death. Dr. Magrath was a man whose conspicuous abilities would have secured his success in any walk in life, and he rapidly won for himself the appreciation and esteem of a large circle of patients; in addition to his private practice he held until his death the post of medical officer to the East Grinstead Union and also that of medical officer to the East Grinstead General Dispensary. He was a man of large sympathies, and untiring energies, and his loss will be felt by none more keenly than the poor of the district in which he resided. Recognising the necessity of out-door recreation for the hard-worked professional man, he was one of the founders of, and became largely interested in, the Ashdown Forest Golf Club.

The funeral took place at Forest Row on Wednesday, April 14th, in the presence of a large number of mourners and friends and many others who were anxious to show by their presence their sense of the loss of an able, sympathetic, and kind-hearted medical adviser. The service at the church was conducted by the vicar, the Rev. A. J. Swainson, assisted by the Rev. E. Ruck Keene, rector of Copford, Essex, and the Rev. T. P. Bacon-Phillips, rector of Crowhurst, Sussex, the body being borne to the grave by members of the Order of Foresters.

JAMES METCALFE APPLETON, M.D. PISA, M.R.C.S. ENG., L.S.A.

DR. APPLETON was the second son of Mr. Richard Appleton, of Stokesley, Yorkshire, a country surgeon of extensive practice in Cleveland. He came of a long lineage, for he belonged to an old yeoman family which originally sprang from Appleton le Wiske, and had always lived in North Yorkshire, having for more than two hundred years farmed their own land at Newclose, Hutton Rudby. Commencing his studies at the Leeds Medical School, Mr. Appleton eventually proceeded to Edinburgh, where he was the companion of another Leeds student, whose real name was Roberts, but who afterwards, under the assumed name of Stanley, became famous as one of the naval surgeons of the *Erebus* and *Terror* in the ill-fated Franklin Expedition. Before becoming qualified to practise Mr. Appleton continued his studies in France and Italy at a time when such an undertaking was rarely thought of, and in after years he delighted in giving interesting particulars of his student life abroad, expatiating on the invariable courtesy and kindness of the great French professors of that day. In 1836 he received the Licence of the Society of Apothecaries of London, in 1837 he became a Member of the Royal College of Surgeons of England, and in 1838 he graduated as M.D. at the University of Pisa. He then settled in London, and for more than fifty years practised in Curzon-street and Half Moon-street, Mayfair. Dr. Appleton was for many years on the vestry of St. George, Hanover-square, at a time when it carried on the whole of the administration of this important parish, and was well-known as an active member, possessed of a sound judgment and considerable business ability. He died at his residence, 27, Gilston-road, South Kensington, on April 18th, aged eighty-two years.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—**The following gentlemen passed the First Examination of the Board at the quarterly meeting of the examiners in the subjects indicated under the "Four Years Regulations":—**

Part I., Chemistry, including Chemical Physics:

Anning, James John, private study.
Jones, Thomas Burnell, St. Bartholomew's Hospital.
Pettigrew, William, Firth College, Sheffield.
Verity, Robert James Stanley, Charing cross Hospital.

Part II., Materia Medica:

Anning, James John, private study.
Crabtree, Emilio Fredrico, St. Bartholomew's Hospital.
Molineux, Bernard Newmarch, St. Thomas's Hospital.
Musgrove, Edward Hugh, University College of South Wales, Cardiff.
Peirce, James Arthur Lilwall, Mason College, Birmingham.
Pitts-Tucker, Francis Augustus, St. Thomas's Hospital.
Sparkes, William Moore Bell, King's College Hospital.
Wright, Louis, St. Thomas's Hospital.

Part III., Elementary Physiology:

Robinson, Ricardo Adolfo, University College Hospital.
Sowden, George, London Hospital.

The following gentlemen passed the third examination of the Board at the quarterly meeting of the examiners in the subjects indicated under the "Five Years' Regulations":—

Part I., Chemistry and Physics:

Agar, Samuel Annesley, London Hospital.
Apperley, Henry David, Middlesex Hospital.
Bachs, Johannes Adolphus, King's College Hospital.
Bailey, Charles Henry Farley, Westminster Hospital.
Bates, Joab Edward Lionel, Guy's Hospital.
Blanc, Antonio, King's College Hospital.
Boclet, Faustian Marcel, Charing cross Hospital.
Bridge, John Crosthwaite, Middlesex Hospital.
Butler, Archibald, St. Bartholomew's Hospital.
Capon, Benjamin, University College, Liverpool.
Carling, Ernest Rock, Westminster Hospital.
Clitheroe, Herbert George, London Hospital.
Darbyshire, Harold Stewart Cassam, Firth College, Sheffield.
Drinkwater, Fredrick Andrew Worsley, University College, Liverpool.
Duigan, Victor John, St. Bartholomew's Hospital.
Emerson, Herbert, St. Mary's Hospital.
Evans, David Haydn, University College of South Wales, Cardiff.
Froggatt, George Ernest, Middlesex Hospital.
Gater, Horace James, Guy's Hospital.
Gauntlett, Owen Binns, St. Thomas's Hospital.
Gleig, Percy North, Charing-cross Hospital.
Gover, Henry Arthur Sidney, St. Mary's Hospital.
Graves, Robert Kennedy Grogan, St. George's Hospital.
Hickes, Philip Lansdown, University College, Bristol.
Hosford, Alfred Stroud, University College Hospital.
Huelin, Lewis William, St. Mary's Hospital.
Hulseberg, Emile Castern, Westminster Hospital.
Inness, William James Deacon, St. Mary's Hospital.
Jackson, Frederick Douglas Selmes, Guy's Hospital.
Johnson, William Jerrold Greaves, St. Bartholomew's Hospital.
Lawrence, Charles Ernest, University College, Liverpool.
Lewis, Robert Robinson, Middlesex Hospital.
Mason, Alfred, Middlesex Hospital.
Michel, Arthur George, Charing-cross Hospital.
Moores, De La Hey, University College, Liverpool.
Newport, Harry MacGregor, Charing-cross Hospital.
Page, William Sidney, St. Mary's Hospital.
Paulin, George Alexander, Royal College of Surgeons, Edinburgh.
Penfold, Fred. Bailey, Middlesex Hospital.
Pern, Lionel, Guy's Hospital.
Phelps, Arthur Austin, Guy's Hospital.
Rahim, Bakhshi Isaac, King's College Hospital.
Ramsay, Palmer Devoy, St. Mary's Hospital.
Roberts, John Hamilton, Charing-cross Hospital and Birkbeck Institute.
Rogers, Stanley, St. Mary's Hospital.
Rudge, Frederick Henry, Bristol and Clifton Laboratory.
Rutherford, Randolph Henry Neilson, University College, Bristol.
Shields, William Thomas, University College, Liverpool.
Smale, Herbert, St. Mary's Hospital.
Smith, Herbert James, Yorkshire College, Leeds.
Soper, Arthur Waldron, Guy's Hospital.
Stevens, Warwick Alan George, Guy's Hospital.
Stewart, William Howard Edwin, Cambridge University.
Thomson, Frederic William, Firth College, Sheffield.
Tumber, Henry Shemeld, Firth College, Sheffield.
Turner, Charles Harold, St. Bartholomew's Hospital.
Ward, Joseph, Firth College, Sheffield.
Willan, George Thomas, Guy's Hospital.
Willian, Richard, University College, Nottingham.
Wood, Frederick Joseph, St. Bartholomew's Hospital.

Part II., Practical Pharmacy:

Adams, Harold Cotterell, Middlesex Hospital.
Ainsworth, Ralph Bignell, St. George's Hospital.
Allpart, Ronald Harrison, St. Thomas's Hospital.
Beard, Joseph, Firth College, Sheffield.
Bernard-Onrait, Hugh, Guy's Hospital.
Campbell, George Gunning, St. Bartholomew's Hospital.
Cawston, Albert Edward, Guy's Hospital.
Colyer, Stanley William Randolf, Charing-cross Hospital.
Davies, John, London Hospital.
Day, Charles Frederick, private study.
De Freitas, Quirino Bonifacio, King's College Hospital.
Denny, Herbert Reginald Harry, Guy's Hospital.
Devitt, Herbert Pye-Smith, St. George's Hospital.
Dudgeon, Leonard Stanley, St. Thomas's Hospital.
Furnivall, Charles Hilton, St. Mary's Hospital.
Gettings, Harold Salter, Mason College, Birmingham.
Gribbell, William Ernest, St. Mary's Hospital.
Howells, Jenkins, Guy's Hospital.
Jackson, William Taylor, Owens College, Manchester.
Lewis, John Lloyd, London Hospital.
Mackie, Frederick Percival, University College, Bristol.
Michell, Ralph, Guy's Hospital.
Morgan, Charles Cyril, St. Bartholomew's Hospital.
Morgan, Lewis Wayne, University College of South Wales, Cardiff.
Nash, Percy James, Guy's Hospital.
Ross, Edward Halford, St. Thomas's Hospital.
Saunders, Leonard Dimock, King's College Hospital.
Saward, Arthur Henry Michael, Guy's Hospital.
Shields, William Thomas, University College, Liverpool.
Sladen, Reginald John Lambert, London Hospital.
Sturdy, Harry Carlile, Guy's Hospital.
Stusser, Israel, London Hospital.
Tayler, Arthur James, King's College Hospital.
Thompson, Cecil Charles Brandon, St. Bartholomew's Hospital.
Thorneley, Michael Harris, Guy's Hospital.
Thwaites, Harry, London Hospital.
Ward, Joseph, Firth College, Sheffield.

Part III., Elementary Biology:

Alvarado, Ricardo Ramon Eulojio, St. George's Hospital.
Ambrose, Arthur Joseph, Westminster Hospital.
Apperly, Henry David, Middlesex Hospital.
Ashton, John Hilton, Owens College, Manchester.
Baker, Harold Ramsey Popham, St. George's Hospital.
Bekenn, Justin James, Mason College, Birmingham.
Bennett, Francis Gray, University College Hospital.
Bent, Sidney Charles Henry, Guy's Hospital.
Bevir, George, London Hospital.
Blanc, Antonio, King's College Hospital.
Blasson, Charles John, University College Hospital.
Blunt, Thomas Edward, London Hospital.
Bridge, John Crosthwaite, Middlesex Hospital.
Brierley, Charles Isherwood, Yorkshire College, Leeds.
Bromley, James, Guy's Hospital.
Browne, George Buckstone, Guy's Hospital.
Browne, William Walker, University College Hospital.
Burges, Richard, London Hospital.
Burgess, Harold Lynch, London Hospital.
Butcher, Harry Hendy, St. Bartholomew's Hospital.
Butterworth, Rupert, St. Mary's Hospital.
Capon, Benjamin, University College, Liverpool.
Causton, Hubert Cyril, University College Hospital.
Cheese, Frederick William, St. Bartholomew's Hospital.
Cole, William Henchman, Guy's Hospital.
Cox, Clement Harlow, Mason College, Birmingham.
Cox, Ernest Alfred, King's College Hospital.
Croly, Henry Pennington, London Hospital.
Curtis, George William, University College Hospital.
Dall, Elliot Wilfred, St. Bartholomew's Hospital.
Davy, William Bradshaw, Middlesex Hospital.
Dermott, Edward James, University College, Bristol.
Douglas, Saxton Edward, Guy's Hospital.
Dudley, Edward Joseph Scott, Guy's Hospital.
Eames, Thomas Richard, Owens College, Manchester.
Evans, David Haydn, University College of South Wales, Cardiff.
Ewen, Gerald Sidney, St. Bartholomew's Hospital.
Ferguson, Lionel Cecil, St. Bartholomew's Hospital.
Froggatt, George Ernest, Middlesex Hospital.
Furnival, Henry Wallace, University College Hospital.
Gardner, Harry, Firth College, Sheffield.
Gray, William Harrington, London Hospital.
Grellet, Harold Rawdon, Guy's Hospital.
Hackney, Gordon Herbert, University College Hospital.
Harris, John Evans, Mason College, Birmingham.
Harris, Philip, St. Bartholomew's Hospital.
Hayes, George Sullivan Clifford, Guy's Hospital.
Hickes, Philip Lansdown, University College, Bristol.
Hollist, Gerald Wetherell Capron, Guy's Hospital.
Hood, Basil, Charing-cross Hospital.
Houlbrook, William Edward, St. George's Hospital.
Howell, Trevor, University College of South Wales, Cardiff.
Howkins, Cyril Henry, Mason College, Birmingham.
Hubbard, Adrian Russell Fortesque, Charing-cross Hospital.
Huelin, Lewis William, St. Mary's Hospital.
Hughes, Cecil Hugh Myddelton, Westminster Hospital.
Hughes, Edmund Octavius, St. Bartholomew's Hospital.
Humphreys, George Frederick, St. Paul's School, West Kensington.
Jiménez, Ricardo, Guy's Hospital.
Jones, Sydney Herbert, Guy's Hospital.
Keeling, Hugh Nevill, Yorkshire College, Leeds.
Latham, Thomas Jones, London Hospital.
Lawrence, Charles Ernest, University College, Liverpool.
Lemon, Charles John, St. George's Hospital.
Lewis, George Jepson, Guy's Hospital.
Lowe, George Carter, Guy's Hospital.
Lund, John Knowles, Mason College, Birmingham.
MacDowall, William MacDawall, London Hospital.
McMahon, Ernest Hammond, Charing-cross Hospital.
Major, Hugh Marcus, St. Mary's Hospital.
Marshall, Reginald Prynne, Guy's Hospital.
Mason, Alfred, Middlesex Hospital.
May, Charles Montague Neale, St. George's Hospital.
Mieville, George Christian Blake, University College Hospital.
Mills, Henry, St. Bartholomew's Hospital.

Miskin, Albert Francis, St. Thomas's Hospital.
Moir, Gordon, Guy's Hospital.
Moll, Otto Charles Henry Leopold, Guy's Hospital.
Moores, De la Hey, University College, Liverpool.
Morris, Leslie Miles, St. Bartholomew's Hospital.
Nash, Arthur Charles, Guy's Hospital.
Nash, Percy James, Guy's Hospital.
Osburn, Arthur Carr, Guy's Hospital.
Owen, Charles Louis Claude, St. Bartholomew's Hospital.
Pavitt, Percy George, Middlesex Hospital.
Peel, Harold George, Yorkshire College, Leeds.
Phillips, Nathaniel Richard, University College of South Wales, Cardiff.
Phipps, Charles Arthur Gayer, Owens College, Manchester.
Pollard, Allan Faraday Campbell, St. Bartholomew's Hospital.
Powell, James Farquharson, St. George's Hospital.
Poyser, Richard Cruickshank, Guy's Hospital.
Prall, Sydney Lionel, Guy's Hospital.
Price, Ernest Walters, St. Bartholomew's Hospital.
Raven, Hugh Milville, St. Mary's Hospital.
Reed, Keppel Hart, St. George's Hospital.
Riley, Stanley, Owens College, Manchester.
Roberts, Earnest, Guy's Hospital.
Roberts, William Owen, Guy's Hospital.
Robertson, Struan Arthur, University College Hospital.
Roper, Richard Snelling, Guy's Hospital.
Round, Harold, Mason College, Birmingham.
Rowlands, Moses John, University College of South Wales, Cardiff.
Rugg, Godfrey Faussett, University College Hospital.
Rutherford, Randolph Henry Neilson, University College, Bristol.
Ryley, Charles, St. Mary's Hospital.
Ryman, Carl Anders, St. George's Hospital.
Scoones, Harold Edward, St. Bartholomew's Hospital.
Scott, Maitland Bodley, St. Bartholomew's Hospital.
Sewell, Henry George, London Hospital.
Shadwell, Lancelot Walter, St. George's Hospital.
Shannon, Stanley Samuel Howard, Guy's Hospital.
Sladen, Reginald John Lambert, London Hospital.
Shields, William Thomas, University College, Liverpool.
Smith, Frank Wybourn, Guy's Hospital.
Soper, George Bertram Spencer, Guy's Hospital.
Spalding, Archibald Denize, London Hospital.
Stewart, Charles Ravenscroft, St. George's Hospital.
Stusser, Israel, London Hospital.
Thompson, Francis, London Hospital.
Traylen, Charles Leonard, London Hospital.
Trimmer, Francis Inman, London Hospital.
Tumber, Henry Shemeld, Firth College, Sheffield.
Turner, Francis John, Guy's Hospital.
Upcott, Harold, St. Thomas's Hospital.
Vaughan, Walter Frederick Hamilton, St. Mary's Hospital.
Walker, John, St. Thomas's Hospital.
Wells, John, Mason College, Birmingham.
Whitwell, Hugh, St. Bartholomew's Hospital.
Willan, Richard, University College, Nottingham.
Wilson, Geoffrey Plumpton, London Hospital.
Woods, Charles Murray, Charing-cross Hospital.
Woodwark, Charles Stewart, St. Bartholomew's Hospital.
Wroughton, John Henry, St. Bartholomew's Hospital.
Young, Alister Cameron, St. Bartholomew's Hospital.

SOCIETY OF APOTHECARIES OF LONDON.—In April the following candidates passed in the subjects indicated:—

Surgery.—H. A. Belbin, Sheffield; W. F. Chrispin, Leeds; H. M. Church, McGill University; E. C. Flint, Royal Free Hospital; P. C. Maitland, Middlesex Hospital; A. F. Millar, St. Thomas's Hospital; J. C. Müller, Calcutta; J. Owen, Liverpool; M. Pantin (Section I.), Royal Free Hospital; R. W. C. Pierce (Section I. and II.), St. Thomas's Hospital; G. Renshaw, Manchester; A. W. S. Sheldon, St. Bartholomew's Hospital; and J. Spencer and H. de P. B. Veale, Leeds.

Medicine, Forensic Medicine, and Midwifery.—E. C. Flint, Royal Free Hospital; J. C. Müller, Calcutta; J. Owen, Liverpool; M. Pantin (Section I.), Royal Free Hospital; E. J. Parry, St. George's Hospital; R. W. C. Pierce (Section I. and II.), St. Thomas's Hospital; G. Renshaw, Manchester; and A. W. S. Sheldon, St. Bartholomew's Hospital.

Medicine and Forensic Medicine.—P. M. Brittain, St. Bartholomew's Hospital; A. J. Hayes, Middlesex Hospital; A. E. Seller, London Hospital; and J. M. Wood, Middlesex Hospital.

Medicine.—S. A. Stride, London Hospital.

Forensic Medicine.—A. Avent, St. George's Hospital.

Midwifery.—F. Atthill, Charing-cross Hospital; A. R. Bates, Edinburgh; G. F. May, M'Gill University; and A. P. Square, Middlesex Hospital.

The diploma of the Society was granted to the following candidates, entitling them to practise Medicine, Surgery, and Midwifery:—Messrs. Belbin, Brittain, Church, May, Owen, Pierce, Renshaw, Sheldon, Veale; Miss Flint and Miss Müller.

UNIVERSITY OF CAMBRIDGE.—The following candidates have satisfied the examiners in both parts of the Examination in Sanitary Science, April, 1897:—

Charles H. B. Adams, Octavius W. Andrews, Francis J. Brakenridge, George T. Cattell, Guy B. Courtney, John Donald, George G. Genge, Bertie B. Ham, Charles P. Handson, William A. Justice, John T. Leon, Frederick Pershouse, John Pringle, Frederick A. Rogers, Thomas H. Smith, and Herbert H. Woods.

UNIVERSITY OF EDINBURGH.—The following is the official list of candidates who have completed the First, Second, and Third Professional Examination, respectively, for degrees in Medicine and Surgery during March and April:—

First Professional Examination.—J. F. Alan, C. H. Allen, J. D. Anderson, Mary Anderson, A. A. Ayton, A. C. Begg (with distinction), Hubert Bishop, G. S. Blandy, V. C. de Boinville, E. S. Brett, J. M. L. Brown, M.A., G. C. Burgess, G. B. Butt, M. G. I. Cadell, Ewen Cameron, G. S. Carey, Alexander Cartner, A. W. S. Christie, R. V. Clark, M.A., H. L. Clift, V. A. P. Coghill, John Cook, W. P. Cormack, B. M. Cunningham, M. S. Dickson, T. G. B. Dodds, Henry Dodgson, A. R. Douglas, Charles Douglas, J. W. Duffus, M.A., W. A. Duncan, W. T. Dunn, J. M. Dupont, J. R. Edward, V. G. Fergusson, V. M. Fergusson, D. C. L. Fitzwilliams, B. G. Forman, A. T. Gavin, J. S. Gelkie, E. M. Glanville, M. J. Gordon, A. L. Gurney, James Halliday, E. R. Henderson, C. G. Hey, C. E. P. Husband, William Hutchison, C. E. Hutson, J. P. P. Inglis, F. F. C. Jagger, E. M. G. Jayne, William Landsborough, Albert Leach, A. C. Lennie, James Lindsay, Elizabeth M'Elney, A. C. N. M'Hattie, J. H. M'Kee, D. M. M'Leod, L. A. MacMunn, Elizabeth Macroy, M. M. Meikle, William Miller, R. C. Monnington, Peter Murray, M.A., William Murray, J. F. Orr, D. E. S. Park, T. B. Paterson, M.A., W. S. Patton, J. G. Peebles, S. G. Peill, C. E. Pepper, H. G. Pesel, L. T. Price, P. C. Rayner, J. L. Rentoul, H. M. Roberts, J. S. E. Robertson, M. W. Robertson, G. A. P. Ross, L. S. Sandeman, M. S. Scott, Patrick Shaw, G. W. R. Skeen, M. W. Smart, C. W. Somerville, H. L. Spark, B. A. Spence, G. H. Steven, I. S. Stewart, C. P. Strong, G. L. Thompson, Robert Thompson, A. L. Venters, Philip Weatherbe, H. T. Wolfenden, J. H. Wrightson, and J. C. Zuidmeer.

Second Professional Examination in Anatomy, Physiology, and Materia Medica (New Regulations).—John Anderson (with distinction), R. A. J. Asbury, Harvey Baird, W. J. Barclay (with distinction), L. D. H. Baugh, J. G. Bell, H. W. Boreham, A. C. Brown, E. A. Brown, A. E. Burroughs, T. C. Caldwell, H. G. Carlisle (with distinction), L. M. Chesney, R. M. Dalziel, William Darling, Y. A. Djedjizian, C. H. Durrant, D. D. Farquharson, R. R. Fasson, David Ferrier, E. G. Ffrench, A. S. Frank, John Fullarton, A. E. Goldie, J. H. Gordon, T. B. Gornall, A. H. Griffith, A. M. de Gruchy, W. D. S. Harrison, F. J. Hathaway, J. T. P. Heatley, I. K. Hermon, James Husband, W. E. Hutchison, J. G. Jack (with distinction), John Jeffrey, S. H. Johnson, G. D. Laing, Thomas Livingstone, J. L. Louis, B. G. Macdonald, J. M. Macdonald, P. H. Macdonald, Harold Macfarlane, Robina M'Gregor, Andrew M'Kaig, W. M. Mackay, Maxwell Mackelvie, H. M. Mackenzie (with distinction), T. C. Mackenzie, George Mackie, R. C. M'Lachlan, L. Maclagan-Wedderburn, G. C. M'Leavy, Wm. Macniven, D. A. Macvean, J. F. G. Martin, James Masson, M.A., T. R. Matthews, W. W. Maxwell, G. H. Menzies, M.A., James Miller, B.Sc., James Miller, J. G. Mitchell, J. R. Munro, James Orr, E. C. Peake, A. S. M. Peebles, E. J. Peill, Arthur Preston (with distinction), T. A. Price, H. G. P. Raeburn, A. C. Renwick, T. E. Richards, Robert Ritchie (with distinction), William Rogers, Thomas Rogerson, R. M. Rowe (with distinction), Abrahim Shalaby, A. K. Smith Shand, G. F. B. Simpson, V. E. Sorapure, H. B. Sproat, W. J. Stuart, M.A., R. G. Thomson, R. R. Turnbull, N. D. Walker, C. H. J. Watson (with distinction), A. S. Whytock, and W. R. E. Williams.

Second Professional Examination in Anatomy, Physiology, Materia Medica, and Pathology (Old Regulations).—Nisar Ahmed, E. B. Anderson, J. H. Bam, F. J. H. Bateman, William Bennett, A. L. J. Branday, A. J. W. Buchanan, S. G. Champion, J. L. Davies, W. H. Dawson (with distinction), F. B. Feast, G. L. K. Finlay, J. V. Fox, W. F. Godfrey, A. D. Grange, E. I. Hudson, N. T. Kerr, John Mackenzie, C. C. Macmillan, D. J. C. Oliver, W. J. Pierce, G. H. W. Robertson, M.A., F. S. L. Rose, and I. B. Venters.

Third Professional Examination.—D. V. M. Adams, John Aloindor, James Allison, J. R. Anderson, W. N. Barker (with distinction), William Bell, H. A. S. Bird, J. M. Bowie, E. R. Branch, Stanley Branch, C. S. Brebner, R. N. Brebner, H. H. Broome, Robert Bruce, E. H. Brunt, James Burnet, M.A., John Cameron, Robert Cameron, J. A. Craig, William Craig, F. P. Crowther, Robert Cumming, E. F. Cyriax, J. M. Cuthbert, L. J. M. Deas, George Dick, R. J. Dick, W. H. Dickinson, C. H. Elmes, J. F. Falconer, E. G. Ffrench, Duncan Forbes (with distinction), A. D. Fordyce (with distinction), Charles Forsyth, A. F. Fraser, A. T. Gailletson, A. B. George, H. E. Gibbs, Robert Gibson, Dorothy Gilfillan, Andrew Gilmour, Alexander Goodall, A. M. Green, A. A. Gunn, A. G. Hamilton, James Haworth, T. E. Hincks, C. A. B. Horsford, Joseph Hunter, W. E. Hutchison, J. W. Ingles, W. J. Jones, G. E. J. King, G. de Labat, F. O. Lasbrey, E. W. Lewis, A. J. M'Clymont, J. G. M'Conaghey, Edward M'Culloch, W. C. Macdonald, John M'Gibbon, A. C. M'Gilchrist, M.A. (with distinction), A. M. M'Intosh, D. V. M'Intyre, M.A., Andrew M'Kaig, William M'Kay, R. W. MacKenna, M.A., J. W. Mackenzie, D. W. Maclagan, T. D. MacLaren, E. C. G. Maddock, T. R. Matthews, C. A. Mayne, W. P. Meldrum, B.Sc., P. E. Millard, James Monroe, J. A. Murray, B.Sc., F. M. Parry, L. D. Parsons, W. M. Paul, M.A., E. C. Peake, C. M. Pearson, G. B. Pemberton, A. de St. L. F. Perigal, J. A. Raeburn, William Raine, H. H. Roberts, F. E. Robinson, G. A. Rorie (with distinction), A. C. Sandstein (with distinction), R. F. M. Scott (with distinction), Alfred Shearer, A. B. Shed, Ward Smith, Edgar Somerville, W. E. Tellet, A. H. Thomas, A. H. Thompson, P. G. L. du Toit, Henry Wade, W. E. J. Wallis, David Wardrop, A. B. Waters (with distinction), Arthur Whittome, J. R. Williamson, W. C. Wilson, M.A., A. E. B. Wood, and G. J. C. Young.

ROYAL COLLEGE OF SURGEONS IN IRELAND: FELLOWSHIP EXAMINATION.—Ambrose E. I. Birmingham, M.D., M.B., B.Ch. Irel., &c., having passed the necessary examination, has been admitted a Fellow of the College.

PRESENTATIONS TO MEDICAL MEN. — Mr. Richard Bevan, L.R.C.P. Lond., M.R.C.S. Eng., D P.H., of Lydd, Kent, has been presented by the Brookland First Aid Ambulance Class with a silver cigarette case, suitably inscribed, in appreciation of the skill and ability with which the classes in that locality have been conducted.—A largely attended meeting of members of the Oddfellows Friendly Society and others was held on April 24th at

the Llwyngwair Hotel, Newport (Pembrokeshire), the occasion being the presentation of an address to Mr. H. Bowen Perkins, M.R.C.S. Eng., L.R.C.P. Lond., the mayor, who is leaving Newport. The chair was occupied by Dr. D. Havard, J.P.—Mr. R. Clark Newton, M.R.C.S. Eng., of Newcastle-on-Tyne, has been the recipient from the students of the ambulance class (St. John Ambulance Association), under the direction of the Horsley local centre of the Technical Education Committee, of a suitable thankoffering for his appreciated services to the class.

AT a meeting of the Bolton and District Medical Society, composed of twenty-eight members, duly convened and held at Bolton on April 22nd, Dr. Robinson being in the chair, the following motion, proposed by Mr. Jefferies and seconded by Dr. Brazil, was agreed to: "That on and after June 1st, 1897, whenever any registered medical practitioner, or any practitioner entitled to be registered (other than practitioners empowered by the Medical Act, 1886), either directly or indirectly issues, or sanctions, or takes part in the issuing of, any instrument or document which professes to empower the holder of such instrument or document to practise, or to hold themselves out as being in any way entitled to practise, any part or branch of the practice of medicine or of surgery, or of midwifery, such practitioner so doing shall, on due proof being given, be judged by the General Medical Council to have been guilty of infamous conduct in a professional respect, and his name shall be erased from the Medical Register, and any registrable qualification taken from him by the body or bodies which granted such. That the secretary forward a copy of this resolution to Sir R. Quain, Bart., President of the General Medical Council, 299, Oxford-street, London; to the medical journals; to Dr. R. R. Rentoul and the four other Direct Representatives—viz., Mr. G. Brown, 63, Charing-cross-road, London, W.C.; Dr. J. G. Glover, Highbury-place, London, N.; Dr. W. Thomson, Stephen's-green, Dublin; and Dr. W. Bruce, Dingwall, N.B."

THE CITY HOSPITAL, BIRMINGHAM.—Some extensive building operations, lasting over two years, have now been completed at this hospital, and have resulted in such important additions to, and rearrangement of, the old buildings, as almost to constitute a new hospital. The new buildings comprise two double-storeyed pavilions, each containing four large wards; a two-storeyed isolation pavilion containing eight small wards; an administrative block, with quarters for the staff; and a steam laundry, boiler-house, &c. Access to the upper storeys of the first-mentioned two pavilions is gained by a fireproof staircase terminating below in the open air, and thus effectually preventing any aerial communication between the two storeys. The flooring of the wards consists of polished oak blocks laid on cement concrete, that of the offices, passage, and entrance hall being of mosaic. The walls are faced with Portland cement with a dado of enamelled bricks five feet high, all corners and angles being rounded to facilitate cleaning. Each ward is heated by two double down-draught ventilating stoves, and the offices and halls by steam radiators. The lighting is by the incandescent gaslight. Each ward measures 63 ft. by 27 ft. by 12 ft., and accommodates from twelve to sixteen patients, according as it is used for acute or for convalescent cases. The administrative block contains quarters for the entire staff, there being 100 bedrooms, besides dining rooms, sitting rooms, and recreation rooms. An additional building is about to be erected, which will contain a waiting-room for visitors, a suite of "discharging" rooms, a "receiving" room, and a small bacteriological laboratory. There are no corridors or covered ways between the various buildings, communication being over macadamised roads and footpaths. A footbridge is now being built over the canal separating the Lodge-road Hospital from the branch institution (formerly the small-pox hospital) in Western-road. When this is completed the two hospitals will be worked as one institution, and together they will provide accommodation for 400 patients. All the wards are connected with the administrative block and the medical superintendent's office by telephone. The principal officers remain as before: medical superintendent, C. Killick Millard, M.D. Edin., B.Sc.; assistant medical officers, J. E. A. Chatelier, M.B. Edin.; and J. H. Murray, M.B. Lond.; matron, Miss E. Stansbie; and steward, F. R. Thorley. The architects for the new buildings are Messrs. Martin and Chamberlain, Birmingham, and the contractors are Messrs. W. and J. Webb. The estimated cost is about £35,000.

NEWCASTLE-UPON-TYNE NEW INFIRMARY.—The first meeting of the building committee was held on April 27th. Mr. Riley Lord, ex-Mayor, was appointed chairman, and Professor Philipson vice-chairman. The subscription is now £87,000.

DIPHTHERIA IN LONDON.—The tendency of fatal diphtheria in the county of London has, during the last two completed weeks, been again to increase. In the three weeks ended with April 10th the number of deaths from the disease had been 43, 41, and 23 respectively. In the next succeeding week, ended on April 17th, the deaths registered from diphtheria in London rose to 30, but even so they were 4 below the corrected decennial average for the fifteenth week of the period 1887-96. Of the 30 deaths 4 were credited to Bermondsey and 3 to Whitechapel sanitary areas. All but one were of persons aged under twenty years, and only 2 were of infants under one year. The admissions to hospital in the week were 83, against 91, 93, and 103 in immediately preceding weeks, and the number of patients remaining under treatment on April 17th was 757. Last week the registered deaths from diphtheria in London rose further to 40, and were 10 above the corrected decennial average for the sixteenth week of the period 1887-96. Hackney had 6 deaths credited to it, Chelsea and Battersea each of them 4, and Poplar and Greenwich sanitary areas 3 deaths each. The admissions numbered 96, and the cases under treatment on Saturday last amounted to 774. All the 40 deaths were of young persons aged under twenty years, and only one was that of an infant. In the outer ring in the two weeks in question the registered deaths from diphtheria numbered 7 and 9 respectively.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Rev. Francis Jacox, of Blenheim-road, St. John's-wood, London, bequeathed £1000 to Charing-cross Hospital to endow a bed to be called the "Francis Jacox bed"; £1050 to the Middlesex Hospital, to found a bed on similar terms; and £3000 to St. Mary's Hospital, Paddington, for three beds on the same conditions.—The Worshipful Grocers' Company has granted a donation of £100 to the Seaside Convalescent Hospital, Seaford.—In behalf of the New General Hospital, Birmingham, building fund Messrs. W. D. Rudder and Son and their employés have contributed 300 guineas.—The Board of Management of the Royal Hospital for Incurables, West Hill, Putney, has received £1000 from the executors of the late Mrs. Jane Lawrence.—The late Mrs. Jane Eleanor Rodgers, of Sheffield, bequeathed £500 to the Sheffield General Infirmary and £250 to the Jessop Hospital for Women.—The treasurer of the Leeds Hospital for Women and Children (new hospital with maternity department) has received £100 from the Pantomime Football Committee.—The treasurer of Guy's Hospital has received £1000 from Miss L. A. Williams, to endow a bed in perpetuity in memory of the late Henry Pratt, M.D., also £113 10s., being a first instalment from the shareholders of the South-Eastern Railway Company, towards the re-endowment fund; also a donation from Mr. H. Stone of £105, and from "J. M." £100.—£700 has been added to the funds of King's College Hospital, being the proceeds of a ball organised by Mrs. Wace, wife of the rector of St. Michael, Cornhill.—The committee of the Royal London Ophthalmic Hospital, Moorfields, London, has received a donation of £100 from the Worshipful Company of Grocers towards the building fund of the new hospital; also 100 guineas from the Worshipful Company of Mercers towards the same fund; also £250 from the Worshipful Clothworkers' Company towards the same fund; and £100 from Mr. E. Speyer towards the same fund.—The Board of Management of St. Mary's Hospital, London, has received £900 from the executors of Mr. J. W. Langworthy.—The treasurer of the Metropolitan Hospital has received £120 6s. 8d. as the proceeds of the concert given at the Shoreditch Town Hall in January last.—The committee of the North London or University College Hospital has received £100, being the proceeds of a concert in aid of the funds, organised by Mrs. Frederick Roberts; also £250 from the Worshipful Company of Goldsmiths; also £200 from Mrs. Nathaniel Montefiore; also £250 from His Grace the Duke of Bedford, president of the hospital.—The secretary of the British Home for Incurables (offices, 72, Cheapside, London) has received from the executrix of the late Mrs. J. Rennie, of Anerley, £1000.—The Alexandra Hospital for Children with Hip Disease, Queen-square, Bloomsbury, London, has received a

donation of £200 from a "Lady."—The committee of the London Hospital has received an anonymous gift of £1000 for the endowment of a bed in the hospital.—Mr. E. Hildred Carlile of Helme Hall, Huddersfield, has sent a donation of £8000 to the Huddersfield General Infirmary as his contribution to the completion of the infirmary buildings and "in commemoration of Her Majesty's long reign."—Mr. John Brigg, M.P., and Mr. Prince Smith have each given 1000 guineas for providing better hospital accommodation at Keighley.—The employés of Messrs. W. D. and H. O. Wills, Bristol, have subscribed £172 towards the proposed convalescent home for Bristol.—"C. S. B. D. I." has given £100 towards the extinction of the debt of £668 on the Bristol Hospital for Sick Children and Women.—The Workmen of Sir W. G. Armstrong, Whitworth, and Co., at Elswick, have contributed to the local medical charities £557 10*s.* 6*d.* for the quarter ending March 31st last, and of this sum £413 0*s.* 8*d.* has been allocated to the Royal Infirmary, Newcastle-upon-Tyne.—The treasurers of the Middlesex Hospital have received a donation of £1050 from Mrs. Sarah Moore Thompson to endow a bed in the cancer wards to be called the "Moore Thompson" bed, also £500 from Miss Chippendale in memory of a sister.—The Baroness de Hirsch has sent to the Lord Mayor, the president of the Jews' Hospital and Orphan Asylum at Norwood, a donation of £1000 towards the fund for the new wings, and contributed £1000 in aid of the building fund for a French convalescent home at Brighton in connexion with the French Hospital in London; also £200 towards the extension and improvement fund of Queen Charlotte's Lying-in Hospital, Marylebone, London; also a donation of £300 to the North-Eastern Hospital for Children, Hackney-road, Shoreditch.—The late Colonel H. Page, J.P., of Llandaff, has bequeathed £1000 to the Glamorganshire and Monmouthshire Infirmary and £500 to the *Hamadryad* hospital ship, Cardiff.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Easter Recess.

AFTER a recess of almost a fortnight the House of Commons resumed its session on Monday, April 26th. The House of Lords will resume on Monday, May 3rd.

Public Burial Grounds.

Mr. J. W. Sidebotham intends to move for a select committee to inquire into the subject of burial grounds provided by local authorities, whether any alterations in the law are necessary, especially in regard to the consecration of the ground, the provision of chapels, the allocation of fees, and the appointment of chaplain.

HOUSE OF COMMONS.

MONDAY, APRIL 26TH.

Army Medical Department.

Mr. Bartley asked the Under Secretary of State for War whether it was a fact that the effective branch of the Army Medical Department was, and had been for some time, much below its authorised strength; whether the cost of the non-effective branch of the Army Medical Department was now nearly equal to, if it did not exceed, the cost of the effective branch; whether he was aware that many of the medical officers who now retired on a pension at the early age of about forty-five years were willing to remain on the active list; and whether he would take steps to retain on the active list medical officers who now retired in the prime of life, but who were willing to remain on the active list.—Mr. Powell Williams, who replied for the Under Secretary, said it was the fact that the numerical strength of the Army Medical Department was, and had been, about forty below what was authorised. The non-effective charge was only one-half the effective charge for medical officers. At forty-five years of age medical officers retired voluntarily, but they were required up to fifty-five years to come up for service if an emergency arose.—Dr. Farquharson asked whether it was not the case that medical officers were not compelled to retire before the age of fifty five years?—Mr. Powell Williams replied that those who retired at forty-five years did so voluntarily, but all who retired at that age were liable to come up for service if an emergency arose.

Overcrowding on the Underground Railway.

Mr. Weir asked the President of the Board of Trade whether, having regard to the excessive overcrowding of the carriages of the Metropolitan and Metropolitan-District Railways, he would suggest to those companies that the by-law approved by the Board of Trade under which a passenger was liable to a fine for travelling in a carriage of a class superior to that for which he was booked should be relaxed when he was unable to find a seat in the class of carriage for which he had taken a ticket.—Mr. Hanbury replied, saying that the President of the Board of Trade was not prepared to make the suggestion referred to in the question to the railway companies, as he doubted if it would act as a remedy for overcrowding. As a matter of practice the Board of Trade understood that the companies did not prosecute except in clear cases of intent to defraud.

TUESDAY, APRIL 27TH.

Medical Inspectorship of Prisons.

Mr. Pickersgill asked the Secretary of State for the Home Department whether Dr. Gover had resigned the medical inspectorship of prisons, and, if so, whether he would take the opportunity to appoint a medical man to be a member of the Prisons Board in accordance with the recommendation of the late Committee on Prisons, and thus assimilate the constitution of the Prisons Board in England to that of the Prisons Board in Ireland.—Sir Matthew White Ridley, in reply, said it was the case that Dr. Gover had resigned his appointment, but he had already decided, after giving full consideration to the recommendation of the Prison Committee, that it was not possible to dispense with the services of a medical inspector, and had therefore appointed Dr. Smalley, the medical officer of Parkhurst, in succession to Dr. Gover. This did not of course determine the question of the appointment of a medical member of the Board, but he did not at present contemplate making any such appointment.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ADAMS, E. L., M.B., B.S. Lond., L.R.C.P., M.R.C.S., has been appointed a Medical Officer for the Croydon General Hospital.

ALLPORT, WILFRID, L.R.C.P. Lond., M.R.C.S., has been appointed a House Surgeon to the Queen's Hospital, Birmingham.

ANDERSON, J. S., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Assistant Medical Officer to the Hull Corporation Asylum.

BLOMFIELD, S. B., L.S.A., has been appointed Medical Officer for the Hurst Green Sanitary District of the Ticehurst Union.

BUSHBY, THOS., M.B., C.M. Edin., has been appointed an Honorary Physician to the Northern Hospital, Liverpool, vice J. Barr.

BUTLER, A., L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer of Health for the Thedwastre Sanitary District, Suffolk, vice H. E. Harper, resigned.

CHALMERS, DAVID A., M.B. and C.M. Glasg., L.R.C.S. Edin., has been appointed Junior House Surgeon to the Greenock Infirmary, vice Dr. Lumsden, resigned.

CROCKER, J. H., M.D., D.P.H., has been appointed Medical Officer of Health of the Manchester Port Sanitary Authority.

CROWE, LEWIS W., M.D. Dub., B.Ch., has been appointed a Resident Assistant Medical Officer at Dyffryn Aled Lunatic Asylum.

DEMPSEY, P. J., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer to the Employés of the Dublin United Tram Company, vice W. Anderson.

DRUITT, A. E., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer to the Chelsea Infirmary.

EATON, JAMES, M.R.C.S., has been re-appointed Medical Officer of Health by the Grantham Rural District Council.

EDWARDS, ALEXANDER H., M.B. and C.M. Edin., M.R.C.S., has been appointed Senior House Surgeon to the Greenock Infirmary, vice Dr. Miller, resigned.

FLAVELLE, J. M., L.R.C.P. Lond., M.R.C.S., has been appointed House Physician to the West London Hospital, Hammersmith-road.

FOX, G. M., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Workhouse of the Walsall Union, vice J. Wood, resigned.

GREENWOOD, F. R., L.R.C.P. Lond., M.R.C.S., has been appointed a House Physician to the Queen's Hospital, Birmingham.

GRIFFIN, A. E., M.A. Cantab., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed House Physician to the *Dreadnought* Seamen's Hospital, Greenwich, S.E.

HARRISON, L. K., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant House Physician to the Metropolitan Hospital, King's-road.

HENDERSON, A., M.B., C.M. Aberd., has been appointed Medical Officer to the Aberdeen General Dispensary, vice J. Gordon, resigned.

MARNOCH, JOHN, M.B., C.M. Aberd., has been re-appointed Medical Officer in connexion with the Gas and Electric Lighting Department by the Aberdeen Town Council.

MAY, H. J., M.B. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Royal Surrey County Hospital, Guildford.

NARIMAN, S., M.D. Bombay, L.R.C.P. Lond., M.R.C.S., has been re-appointed Second Assistant Medical Officer by the Shoreditch Board of Guardians.

PRICE, F. E., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the West London Hospital, Hammersmith-road.

PRITCHARD, W. B., L.R.C.P. Lond., M.R.C.S., has been re-appointed an Assistant Medical Officer to the Manchester Royal Infirmary.

ROBINSON, E. S., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer of Health, Stourport.

RODOCANACHI, A. J., M.D. Lond., has been appointed House Surgeon to the District Infirmary, Ashton-under-Lyne.

SMITH, E. C. T., L.R.C.P. Lond., M.R.C.S., has been appointed Obstetric and Ophthalmic House Surgeon to the Queen's Hospital, Birmingham.

TYRER-JONES, L., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Trimsaran Collieries and Steelworks, Carmarthenshire.

WHITE, C. P., F.R.C.S., L.R.C.P. Lond., M.R.C.S., has been appointed Pathologist to the General Hospital, Birmingham.

WRANGHAM, J. M., M.B. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Fourth Assistant Medical Officer to the Wadsley Asylum, Sheffield.

YOUNG, T. B., M.D. Brux., L.R.C.P., L.R.C.S. Edin., M.R.C.S., has been re-appointed Medical Officer of Health by the Halesowen Rural District Council.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BATH GENERAL OR ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer, unmarried. Salary £100 per annum, with board and appointments in the Hospital.

CARDIFF INFIRMARY.—Assistant Resident Medical Officer for six months. Board, washing, and apartments provided.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY, Chesterfield.—Resident House Surgeon for two years. Salary £100 per year, with board, apartments, and laundress.

CITY OF COVENTRY.—Medical Officer of Health for five years. Salary £500 per annum. Applications to the Town Clerk, Coventry.

GLASGOW ROYAL INFIRMARY, GLASGOW OPHTHALMIC INSTITUTION, ST. MUNGO'S COLLEGE.—Surgeon to the Glasgow Ophthalmic Institution, Ophthalmic Surgeon to the Dispensary of the Glasgow Royal Infirmary, Consulting Ophthalmic Surgeon to the wards of that Infirmary, and Professor of Ophthalmology in St. Mungo's College. By arrangement the same person will be appointed to all these offices. Salary £100 per annum, with share of students' fees.

CORPORATION OF CROYDON.—Resident Officer for one year for the Borough Hospital for Infectious Diseases. Salary £120 per annum, with board and lodging. Applications to the Medical Officer of Health, Town Hall, Croydon.

GENERAL INFIRMARY AND DISPENSARY, Doncaster.—In-door Dispenser and Assistant to House Surgeon. Board, lodging, and washing provided.

GUEST HOSPITAL, Dudley.—Resident Assistant House Surgeon for six months. Board, lodging, and washing provided in the hospital.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, London.—Junior Resident Medical Officer. Salary £50 per annum, with board, lodging, and washing.

HOSPITAL FOR WOMEN, Soho-square, London.—House Physician for six months. Salary for that period £30.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, Soho-square, London.—Resident Medical Officer for six months. An honorarium of 10 guineas for that period, with board, residence, and laundry.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, London.—Resident Medical Officer, for six months. Salary at the rate of £100 per annum, with furnished apartments, board, and washing.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Assistant House Surgeon, non-resident. Salary £50 per annum.

RURAL DISTRICTS OF BARROW-UPON-SOAR, BILLESDON, BLABY, and for such districts for the period ending March 31st, 1900. Salary other combined Rural and Urban Districts.—Medical Officer of Health £450 per annum (inclusive of travelling, stationery, and all other expenses). Applications to Mr. Thos. C. Bodycotte, Lutterworth.

Births, Marriages, and Deaths.

BIRTHS.

BOSTOCK.—On April 24th, at Onslow-gardens, the wife of Surgeon-Captain Ashton Bostock, 2nd Scots Guards, of a son.

FAWCETT.—On April 24th, at Beauchamp Lodge, Wimborne, the wife of Dr. Herbert Fawcett, of a son.

GODFREY.—On April 24th, the wife of H. J. Clarendon Godfrey, Surgeon, of Bridlington Quay, of a son.

MOYNIHAN.—On April 27th, at 5, Woodhouse-square, Leeds, the wife of B. G. A. Moynihan, M.S. Lond., F.R.C.S. of a daughter.

MURCHISON.—On April 21st, at Wyke House, Isleworth, the wife of F. F. Murchison, M.B., M.A., of a daughter.

PORTER.—On April 10th, at Knollswood Villa, Simla, India, the wife of Surgeon-Captain Bruce Porter, A.M.S., of twin daughters.

TAYLOR.—On April 21st, at The Cottage, South Petherton, Somerset, the wife of Mark R. Taylor, M.R.C.S., L.R.C.P., of a son.

MARRIAGES.

ADAMSON—OMMANNEY.—On April 20th, at St. Mary Abbot's, Kensington, Robert Oswald Adamson, M.A., M.B., of Ashton-terrace, Glasgow, to Evelyn Mary, daughter of the late Commander Henry Mortlock Ommanney, R.N.

CALLENDER—STEPHENS.—On April 22nd, at St. Mary Abbott's, Kensington, by the Rev. Douglas Stephens, cousin of the bride, assisted by the Rev. Canon Pennefather, Vicar of Kensington, Eustace Maude Callender, M.D., fourth surviving son of the late Mr. S. P. Callender of Whalley Range, Manchester, to Adelaide Frances, eldest daughter of the late Mr. John Beeching Stephens of Ardenlee, Maidstone, and of Mrs. Beeching Stephens of 15, De Vere-gardens, Kensington.

DICKSON—HOWLETT.—On April 21st, at All Saints' Church, Upper Norwood, Thomas Hugh Dickson, M.A., M.B., Medical Officer to the Board of Customs, to Rose Annie, younger daughter of General Sir Arthur Howlett, K.C.B., M.S.C.

DREW—RENWICK.—On April 28th, at Streatham, Edward Hatherell Drew, M.R.C.S., L.R.C.P., son of W. T. Drew of Gloucester, to May, eldest daughter of the late S. T. Renwick of Melbourne, Australia.

FEGAN—BRIGSTOCKE.—On April 22nd, at St. James's, Kidbrook, Blackheath, S.E., Richard Ardra Fegan, L.S.A. Lond., M.R.C.S. Eng., L.R.C.P. Lond., of Old Charlton, to Fanny Isabella, daughter of the late Captain Augustus Brigstocke, 51st King's Own L.I.

FULLERTON—BULLOCK.—On April 26th, at Holy Trinity Church, Upper Tooting, Andrew Fullerton, M.D., B.Ch., B.A.O., of Belfast, to Caroline Bullock, second daughter of J. Thornton Bullock, of Upper Tooting.

GROVE—STEVENSON.—On April 27th, at St. John's, Brixton, by the Rev. R. Abbay, rector of Earl Soham, assisted by the Rev. C. J. R. Cooke, the Rev. A. G. Bowman, and the Rev. C. H. B. Williamson, vicar, William Reginald Grove, M.B., B.C. Cantab., of St. Ives, Hunts, to Clara Hilda, second daughter of Thomas Stevenson, M.D., F.R.C.P., of Sandhurst Lodge, Gresham road, S.W.

HOGBEN—WAGSTAFF.—On April 22nd, at St. Augustine's, Highbury New-park, Edgar Hogben, M.D., M.R.C.P., of Stratnmiglo, N.B., to Dorothy Maude, eldest daughter of John Wagstaff, of Highbury Lodge, London, N.

HOWE—WALLWORK.—On April 21st, at Emmanuel Church, Didsbury, George Bradley Howe, M.R.C.S., of Stalybridge, to Ellen, daughter of the late J. W. Wallwork, Esq., of Manchester.

KEOGH MURPHY—SCHOFIELD.—On April 24th, at the Manchester Cathedral, James Keogh Murphy, of Princes-square, Bayswater, M.A., M.B., B.C. Cantab., to Mabel Roney, only daughter of Joshua K. Schofield, of Kersal, Manchester.

LUCAS—BENNETT.—On April 24th, at St. Giles's, Camberwell, Claude Robinson Lucas, M.R.C.S., L.R.C.P., Broadway House, Tooting, to Marion Ada, fourth daughter of the late Edwin Bennett, M.R.C.S., of Worksop, Notts.

MACANN—DAVIES.—On April 24th, Arthur Charles Joseph Macann, M.R.C.S. Eng., L.R.C.P. Lond., eldest son of the late Dr. A. B. Macann, of King-street, Portman-square, W., to Caroline Eliza, youngest daughter of the late John Davies, Esq., of Dale-road, Hampstead.

MILSOME—ARMISTEAD.—On April 22nd, at St. Andrew's Church, Stapleford, Cambs., Harry Blunt Milsome, B.A., M.R.C.S., of Chertsey, Surrey, to Amy Warwick, elder daughter of Dr. Armistead, of Stapleford, Cambs.

PAPILLON—FORD.—On April 24th, 1897, at St. Peter's Church, Belsize-park, Hampstead, by the Rev. Duncan Papillon, M.A., Vicar of Hadley, Wellington, Salop, brother of the bridegroom, assisted by the Rev. Gerard J. Ford, M.A., Rector of Ideford, Chudleigh, South Devon, cousin of the bride, Thomas Alexander Papillon, of 3, Pevensey-road, St. Leonards-on-Sea, son of Major A. F. W. Papillon, R.A., of Reading, to Emma Louisa Wharton, younger daughter of Wharton Ford, of 49, Fellows-road, South Hampstead, N.W.

PENDRED—FLEMING.—On April 21st, at St. Leonard's Church, Streatham, by the Rev. E. L. Berthon, late Vicar of Romsey, great uncle of the bridegroom, assisted by the Rev. Sydney Hall Fleming, Vicar of St. James, Croydon, uncle of the bride, Berthon F. Pendred, M.R.C.S., L.R.C.P., youngest son of Vaughan Pendred, C.E., of Crohill, Streatham, to Eleanor, eldest daughter of Francis Henry Fleming, of Haslemere, Streatham.

PENNY—MACRAE.—On April 24th, at St. John's Church, Upper Norwood, Alfred Gervase Penny, M.A., M.B., B.C., of Peterhouse, Cambridge, and St. Bartholomew's Hospital, to Nellie Grace Gillanders, eldest daughter of late John MacRae, of Arrowah, Bengal.

SLATER—LOY.—On April 22nd, at Whitton Church, near Ludlow, Leonard Slater, M.A., M.B., of Osman House, Fortis-green, London, N., to Agnes, youngest daughter of the Rev. James Loy, Rector of Hardenuish, Wilts.

SOUTHERN—DUNLOP.—On April 21st, at St. Columba's Church, Pont-street, Belgrave-square, London, John Acton Southern, M.B., to Elizabeth Lilias Mary, eldest daughter of the late William Carstares Dunlop, of Gairbraid.

SPARROW—HUGHES.—On April 22nd, at St. Thomas's, Shepherd's-bush, Staff Surgeon Horatio Septimus Richard Sparrow, R.N., H.M.S. *Medea*, fourth son of the late Dr. R. Pennington Sparrow, of Southsea, to Christian Stirling, second daughter of Charles H. Hughes, of Shepherd's-bush.

TORNEY—WOODROW.—On April 21st, at the Skipton Parish Church, Richard Hastings Torney, M.B., Bungay, Suffolk, to Jessie Gunn, youngest daughter of the late John Woodrow, of Sandywood House, Keighley.

WRIGHT—CORRIE.—On April 22nd, at All Saints', Margaret-street, by the Rev. H. C. Wright, of Haileybury College, brother of the bridegroom, assisted by the Rev. Lord Victor Seymour, Rector of Carshalton, Walter Southey Wright, B.A., M.R.C.S., &c., of Park View, Carshalton, youngest son of the late John Freeman Wright, M.R.C.S., &c., of Seymour-street, Portman-square, and of Mrs. Wright, The Hermitage, Shirehampton, to Caroline Maude, younger daughter of B. Corrie, Esq., late R.N., and granddaughter of the late Rev. Frederick Chapman and the Hon. Louisa Yelverton.

WRIGHT—PORTUS.—On April 22nd, at St. Martin's-in-the-Fields, London, by the Rev. Wm. Ball Wright, uncle of the bridegroom, Robert Ball Wright, L.R.C.P. and S. I. of Chester, third son of the late Robert Ball Wright, B.A., J.P., of Foulksneeth Castle, co. Kilkenny, to Dorothea, third daughter of the late George Bullock Portus, of N. Wales.

DEATHS.

ANDREW.—At Tavistock, Devon, James Andrew, M.D. Oxon., Consulting Physician to St. Bartholomew's Hospital, aged 67 years.

APPLETON.—On Easter Day, at Gilston-road, South Kensington, James Metcalfe Appleton, M.D. Pisa (1838), M.R.C.S., Eng. (1837), L.S.A. (1836), aged 82.

DIMSEY.—On April 21st, Alfred Dimsey, M.B., B.S. Lond., of 4, Crouch Hall-road, Crouch-end, N., late House Physician and House Surgeon at University College Hospital, aged 25.

EVES.—On April 26th, at Brooks Lodge, Cheltenham, Charles Thick Eves, Deputy-Surgeon-General, late Indian Service, in his 69th year.

LAWSON.—On April 23rd, at Hay, New South Wales, Thomas Lawson, M.B., C.M., of Dean-terrace, Edinburgh, aged 31. By cable.

ROGERS.—On April 23rd, at his residence, Holland-road, Kensington, W., George Goddard Rogers, M.D. St And., M.R.C.P. Lond.

TEALE.—On April 19th, John William Teale, M.A. Oxon., F.R.C.S., of Scarborough, aged 58 years.

WILSON.—On April 27th, at Huntly, Aberdeenshire, George Wilson, M.D., in his 86th year.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (3rd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), Westminster (2 P.M.).

TUESDAY (4th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (2 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (5th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.).

THURSDAY (6th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.). St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.)

FRIDAY (7th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.).

SATURDAY (8th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (3rd).—ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-square, W.C.).—8 P.M. Communications by Mr. J. F. Colyer, Mr. W. R. Humby, and Mr. H. Baldwin. Exhibition of a Series of Lantern Slides by Mr. C. S. Tomes.

TUESDAY (4th).—PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Parkes Weber: General Lymphadenomatosis of Bones.—Dr. Rolleston and Mr. E. L. Hunt: Dermatitis Maligna.—Dr. A. Latham: Peculiar Specimen of the Vermiform Appendix.—Dr. G. F. Still: Gumma of the Spleen in Children.—Dr. R. H. Fox: Rupture of the Heart.—Mr. S. G. Shattock: Mucoeal Cysts in the Stratum Granulosum. Card Specimens:—Dr. Parkes Weber: Tight-lacing Liver in a Man.—Dr. Rolleston: Non-infective Aneurysms of Cardiac Valves.

WEDNESDAY (5th).—OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Mr. J. Bland Sutton and Mr. J. H. Targett, (both with Lantern Demonstrations). Papers:—Dr. T. Wilson: Chronic Axial Rotation of an Ovarian Cyst giving rise to extreme Twisting of the Elongated Uterus.—Mr. J. W. Taylor: On a Second Case of so-called abdominal or Ventral Pregnancy at Full Term, Operation at the Twelfth Month, Removal of Child and Placenta, Recovery.

THURSDAY (6th).—OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM (11, Chandos-street, Cavendish-sq., W.)—8.30 P.M. Clinical Evening. Mr. P. Smith: Ophthalmic Specimens mounted in Formol Solution.—Mr. Eve and Dr. F. J. Smith: Case of Obstruction of the Cavernous Sinus.—Mr. Hartridge: Unusual (Congenital) Defect of Crystalline Lens.—Mr. E. Clarke: Three Specimens of Detachment of the Retina.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (3rd).—LONDON SCHOOL OF MEDICINE FOR WOMEN (30, Handel-street, Brunswick-square, W.C.).—6 P.M. Dr. P. Manson: Malarial Fever.

TUESDAY (4th).—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—Dr. Beevor: Lecture.

WEDNESDAY (5th).—HOSPITAL FOR CONSUMPTION, &c., (Brompton).—4 P.M. Dr. Mitchell Bruce: Enlargement of the Heart with Cases to illustrate its different Forms in Lung Disease, Valvular Disease, Renal Disease, and Graves's Disease.

LONDON SCHOOL OF MEDICINE FOR WOMEN (30, Handel-street, Brunswick-square, W.C.).—6 P.M. Malarial Fever.

THURSDAY (6th).—ROYAL INSTITUTION.—3 P.M. Prof. Dewar: Liquid Air as an Agent of Research.

SOCIETY OF ARTS.—4.30 P.M. Surgeon-Major Sir G. Scott Robertson: Kafiristan, its Manners and Customs.

FRIDAY (7th).—EAST LONDON HOSPITAL FOR CHILDREN.—3 P.M. Mr. R. W. Parker: Demonstration on Surgical Cases.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—Dr. Colman: Lecture.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 29th, 1897.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
April 23	30·05	E.	46	44	96	53	40	...	Overcast
,, 24	29·90	E.	48	47	91	52	41	...	Cloudy
,, 25	29·90	E.	50	45	93	56	41	...	Cloudy
,, 26	29·82	E.	51	47	106	65	41	...	Fine
,, 27	29·89	N.E.	49	47	82	67	47	0·13	Hazy
,, 28	30·00	N.W.	54	53	95	65	49	0·09	Overcast
,, 29	30·07	S.W.	51	50	109	65	49	...	Overcast

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND, WHEN ACCOMPANIED BY BLOCKS, IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

CRIME IN GLOUCESTERSHIRE.

THE report of the Chief Constable of Gloucestershire for 1896, which has been recently issued, states that the total number of crimes reported to the police under the head of indictable offences was 610, being a decrease of 19 as compared with 1895. The number of persons apprehended and summoned for these offences was 658, an increase of 61 compared with the previous year's return. Of these, 440 were tried summarily—159 were discharged and 281 were convicted—96 were committed for trial and sent to prison, 37 were bailed for trial, and 85 otherwise disposed of. For non-indictable offences 1247 persons were apprehended and 5590 summoned, an increase of 536 as compared with 1895.

Mr. James Brown.—The conclusions are too sweeping and quite unscientific. We should like to have the details of some of the successful cases, with the notes of the medical men in attendance.

"WANDERING RASH OF THE TONGUE."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 21st, 1896, you have a short notice of an article by Dr. J. L. Goodall under the above heading. I have a case which defies all treatment I have brought to bear on it. Will you kindly inform me, either through your readers or by reference to any work, as to the treatment of this troublesome condition. Thanking you in anticipation,

I am, Sirs, yours truly,

April 27th, 1896. SAM. T. LORD, M.R.C.S. Eng., L.R.C.P.Lond.

MEDICAL APPOINTMENTS UNDER THE LOCAL GOVERNMENT BOARD.

Quæsitor (1) will find in "Whitaker's Almanack," under the heading of Government Offices, the names of those attached to the medical staff of the central health departments of the United Kingdom, and in the Medical Directory will be found a list of the medical officers of health to the several sanitary areas of England, Scotland, and Wales. From the same source may also be ascertained the answers to queries 2 and 3. Nos. 4, 5, 6, and 7 may be answered collectively. Without a diploma in Public Health the chances of a medical practitioner who enters the Public Health Service at the present time are not good, and if our correspondent will refer to Section 18, Sub-section 2, of the Local Government (England and Wales) Act, 1888, he will find that a D.P.H. is almost a necessity for anyone wishing to win one of the higher posts, and practically the same conditions obtain in Scotland. In Ireland the state of affairs is somewhat different, but the prospects, even with a D.P.H., are not very promising. An M.D. would certainly improve his chances by taking the D.P.H., but it is necessary to point out that much would depend upon his experience, and, as regards the future, upon his age. The F.R.C.S. would be of but little special value in the service. Probably our correspondent would find that the Local Government Directories, which may be obtained from Messrs. Knight and Co., 98, Fleet-street, London, would afford him some useful information.

J. C. R. (Swindon).—There is not a fixed fee in such cases, but a fee of one guinea in the circumstances mentioned is both reasonable and usual. In the case of certifying lunatics for removal to an asylum the amount of the fee rests with the lunacy justice, but for certifying persons of unsound mind for detention in the workhouse, Section 24, Sub-section 5, of the Lunacy Act, 1890, enacts that "*the guardians* ..... shall pay such reasonable remuneration as *they think fit* to the medical practitioner who, not being an officer of the workhouse, examines a person for the purpose of a certificate under this section." If our correspondent had no previous understanding with the guardians as to what is "reasonable remuneration" he would do well to accept their offer. The only alternative is to sue the guardians in the county court, and this would probably cost more than the matter is worth, and the issue is doubtful, as it clearly rests with the guardians to fix the remuneration, and perhaps they think that some reduction should be made in consideration of the number dealt with at one time.

Mr. C. Williams.—The best way is to consult a list of charitable institutions, such as Burdett's, and to write to the secretaries of two or three for information as to rules, terms, &c.

WANTED A HOME FOR AN IMBECILE BOY.

To the Editors of THE LANCET.

SIRS,—I should be glad to hear of a place where a lad aged about twelve years, and strong in health, though of deficient intellect, could be received and taught. About 10*s.* or 12*s.* a week could be paid for him.

I am, Sirs, yours faithfully,

Wigston Magna, Leicester, April 17th, 1897. A. N. BARNLEY.

P. G. P. (Highbury).—Our correspondent will find a long list of inebriates' homes in Burdett's "Hospitals and Charities." Very few, however, take male patients, and in those that do the lowest fee appears to be two guineas a week.

MEDICAL ATTENDANCE ON THE POOR IN BELGIUM.

THE miserable payments made by local Poor-law authorities in Belgium for medical attendance on paupers have recently formed the subject of somewhat sarcastic remarks in Parliament, from which it would seem that while the usual amount expended on medical attendance, including medicines, by the different boards in the Province of Flanders rarely exceeds a penny per person annually, and in one commune is as low as a farthing, a third of a penny being quite a common rate, a certain typical society in Ghent, composed entirely of healthy men, finds its medical and pharmaceutical expenses amount to about two shillings per head. Again, the horses in the army are supplied with veterinary attendance, at an expense to the nation, which it does not think of grudging, of eighteen shillings. Of course, the comparison between a horse and a human being is not quite fair from a pharmaceutical point of view, but it is always a little tantalising to see contracts given out at fifteen shillings or a guinea per horse to a veterinary surgeon by the same authority that pays its medical officer £50 or £60 for attendance on several hundred poor people, many of whom are chronic invalids and in a condition which, if it existed in a veterinary patient, would lead to a very early interview with the knacker. The Belgian cavalry horses, it will be seen, cost as much to keep in health as is allowed for 900 poor people in some places!

LIFE-SAVING SOCIETY (ANNUAL REPORT, 1895–6).

THIS report contains many interesting features. Among these we may mention in particular an article on Instruction in Swimming at School from the pens of the honorary secretaries of the society, Mr. W. Henry and Mr. A. Sinclair, which shows the use of having a swimming drill on land. The report also gives all the names of persons who have won the society's medallions and certificates during the past year. These awards have greatly increased during the twelve months, while we are also informed that over 2000 persons have acquired a thorough technical knowledge of the various means of saving life from drowning since the work of the society was begun.

Senex.—We do not think that a correct interpretation of the results of analysis can be arrived at without some knowledge of the source of the water and of the possibility of contamination. We attach, also, among the factors which are furnished by chemical analysis some importance to the amount of oxygen absorbed. It is obvious that, although a water may not be polluted with animal matter, yet vegetable pollution may assume an objectionable proportion.

E. H. (Derby).—We never recommend individual practitioners. Our correspondent must consult his own medical man.

"MEN SHALL INCLUDE WOMEN," &c.

To the Editors of THE LANCET.

SIRS,—Your article upon the new Sanitary By-laws for London has set me reading them. I find that all the provisions suppose the persons executing the work to be of the masculine gender. Those who drafted these by-laws have overlooked the possibility of that amorphous precipitate, "the new woman," being thrown down upon the building trade. The position of some unfortunate sanitary inspector unprovided against such a contingency, when suddenly confronted with some defiant specimen of her class, would be suggestive of the roadside toll collector, who, having demanded twopence from two ladies in a dog-cart, and pointed out the by-law that the charge for a man and horse was twopence, was ordered to stand aside as they were two girls and a mare!

I am, Sirs, yours truly,

April 27th, 1897. AN OLD MAN.

Dr. Cafferata.—We do not insert such notices or approve of their publication in the lay journals, such a course being contrary to the code of ethics which governs the medical profession in this country.

A HANDSOME GIFT.

THE *Maryland Medical Journal* states that Dr. Nicholas Senn has purchased the enormous library of the late Professor Du Bois-Reymond, of Berlin, and has presented it to the Newberry Library of Chicago.

Mr. C. Simpson.—Our correspondent had better consult a local medical man and avoid unqualified "specialists."

MEDICAL MEN AND THE TUBERCULIN TEST.

AT a meeting of the Brighton and Sussex Medico-Chirurgical Society the following resolution was passed without dissension after an exhaustive discussion: "That preference should, in the opinion of this society, be given in obtaining milk supplies to such farmers and dairymen as guarantee that their cows have been properly subjected to, and have failed to react to, the tuberculin test for tuberculosis."

C. F. W.—Yes, the name and qualifications mentioned do appear in the current Register.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received:—*Dundee Courier, Derbyshire Times, Huddersfield Examiner, Sheffield Telegraph, Somerset County Herald, Norfolk Chronicle, Times of India, Hull Daily News, Pioneer Mail, Surrey Comet, Richmond Times, Scotsman, Sussex Daily News, Manchester Guardian, Builder, Kentish Gazette, Newbury Weekly News, Lichfield Mercury, Architect, Liverpool Daily Post, Luton Reporter, Wolverhampton Chronicle, Coventry Times, Yorkshire Post, Hastings Times, Glasgow Evening News, Birmingham Gazette, Midland Counties Express, Leeds Mercury, Wigan Examiner, Western Morning News, Portsmouth Times, Halifax Guardian, Salisbury Journal, Bristol Mercury, Walsall Advertiser, Birmingham Daily Post, Isle of Wight Times, Family Doctor, Cumberland Advertiser, Sanitary Record, Cambria Leader, Weekly Free Press and Aberdeen Herald, Reading Mercury, City Press, Surrey Advertiser, Hertfordshire Mercury, Citizen (Gloucester), Local Government Chronicle, Derbyshire Courier, Mining Journal, Gloucestershire Chronicle, Local Government Journal, Richmond and Twickenham Times, Health News, Transvaal Critic, Irish Daily Independent Herald, Standard, Melbourne Evening Telegraph, Dublin Sportsman, Burton Evening Gazette, West Middlesex Herald, The Morning, Daily Record, Canterbury Times, &c., &c.*

Communications, Letters, &c., have been received from—

A.—Mr. W. Alexander, Liverpool; Mr. F. Algar, Lond.; Agricultural Guild, Lond., Sec. of; Achaia Deutsche Actiengesellschaft fur Weinproduction, Patras, Greece; Dr. H. Appleton, Hull; Messrs. Allen and Hanburys, Lond.; Messrs. Armbrecht, Nelson, and Co., Lond.

B.—Mr. James Brown, Bombay; Mr. Anthony Beit, Sandown, Isle of Wight; Bolton Medical Society, Chairman of; Bath Royal Mineral Water Hosp., Sec of; Messrs. Burroughs, Wellcome, and Co., Lond.; Broca, Lond.; Messrs. Burgoyne, Burbidge, and Co., Lond.; T. B. Browne, Ltd., Lond.; Beech Hurst, Hanley; Dr. Birt, Lond.; Dr. A. Bronner, Bradford; Miss A. J. Beatty, Lond.; Messrs. Burgoyne and Co., Lond.

C.—Dr. W. F. Colclough, Oporto, Portugal; Mr. A. C. Champati, Krishnaggar, India; Church of England Temperance Society, Lond., Sec. of; Dr. J. H. Crocker, Eccles; Dr. Cafferata, Spa, Belgium; Church Society for the Promotion of Kindness to Animals, Lond., Hon. Sec. of; Cortland Wagon Co., Lond.; Dr. Crook, Margate; Chirurgus, Lond.; Cardiff Infirmary, Sec. of; Mr. W. P. Cox, Leicester; Mr. T. Cooke, Lond.; Cellular Clothing Co., Lond.; Chesterfield Hosp., &c., Sec. of; Messrs. Crossley, Moir, and Co., Lond.; Crichton Royal Institution, Dumfries, Supt. of.

D.—Mr. W. G. Dickinson, Lond.; Mr. R. Deane, Dublin; Messrs. Duncan, Flockhart, and Co., Edin.; Mr. A. C. Dowell, Lond.; Mr. J. Dowie, Edin.; Dr. Lovell Drage, Hatfield; Dr. T. Dutton, Lond.; P. E. Derrick Advertising Agency, Lond.; Messrs. Down Bros., Lond.; Mr. T. Dixon, Lond.; Doncaster General Infirmary, Hon. Sec. of; Mr. F. Dalton, Rottingdean; *Daily Post*, Birmingham, Proprietors of.

E.—Dr. A. J. Edwards, Chorlton-cum-Hardy, near Manchester;

F.—Dr. C. R. Francis, Lond.

G.—Dr. A. R. Galloway, Aberdeen; Miss A. G. Green, Lond.; *Gazetta degli Ospedali e delle Cliniche*, Genoa, Italy; Dr. C. L. Gibson, New York; Dr. W. Groom, Wisbech; Mr. G. Gresswell, Grimsby; Messrs. Gardiner and Co., Wisbech; General Apothecaries' Company, Lond.

H.—Mr. A. Haviland, Douglas, Isle of Man; Dr. H. Hicks, Hendon; Dr. W. J. Howarth, Bury; Mr. E. Hall, Henfield; Mr. T. Heaton, Burnley; Mr. R. O. Hayes, Hayward's Heath; Handworth House, Penygroes; Mr. G. A. Hawkins-Ambler, Liverpool; Hospital Reform Association, Cardiff, Sec. of; Dr. W. K. Hunter, Glasgow; Mr. T. G. Horder, Cardiff; Mr. C. H. Huish, Lond.; Mr. C. Heneage, Eastbourne; Mr. J. Heywood, Manchester; Messrs. Homfray, Holberton, and Mellor, Brierley Hill; Haydock Urban District Council, Haydock, Med. Officer of Health of.

I.—Messrs. I. Isaacs and Co., Lond.; Messrs. Ingram and Royle, Lond.; International Exhibition of Motors and Cycles, Lond., Organiser of.

J.—Mr. T. V. Jackson, Wolverhampton; W. Judd, Ltd., Lond.; Jenner Society, Gloucester, Hon. Sec. of.

K.—Mr. H. Kimpton, Lond.; Dr. S. Kitasato, Tokyo, Japan.

L.—Mr. H. L. Upton, Stratford-on-Avon; Mr. S. T. Lord, Castleton, Lancs.; Dr. T. Laird, Heywood, Lancs.; Dr. G. T. Longbotham; Middlesborough; London Association for the Prevention of Premature Burial, Executive Committee of; Dr. P. Letters, Valencia Island, co. Kerry; Mr. H. K. Lewis, Lond.; Dr. A. P. Luff, Lond.

M.—Mr. T. Murray, Leamington-on-Tyne; Merchant Banking Co., Lond., Sec. of; Maltine Manufacturing Co., Lond.; Messrs. Macmillan and Co., Lond.; M. A., Lond.; Dr. T. More Madden, Dublin; M.R.C.S., L.R.C.P., London; M.D., Camberwell.

N.—National Hospital for the Paralysed and Epileptic, Lond., Sec. of; National Hosp. for Diseases of the Heart, Lond., Sec. of.

O.—Dr. J. Oliver, Lond.; Dr. H. Lond.

P.—Mr. F. T. Paul, Liverpool; Mr. B. F. Pendred, Lond.; Dr. W. H. Price, Newbridge; Mr. Norman Porritt, Huddersfield; Mr. E. P. Pentony, Middlesborough; Mr. Y. J. Pentland, Edin.; Dr. M. W. Pynappel, Zwolle, Holland.

R.—Dr. R. R. Rentoul, Liverpool; Royal Aquarium, Lond., Sec. of; Messrs. Ross and Co., Lond.; Mr. F. H. Roberts, Lond.; Mr. A. Radcliffe, Heckmondwike; Mr. B. Relton, Rugby; Dr. J. C. Rattray, Swindon; Dr. J. Rose, Chesterfield; Mr. A. Reckless, Sheffield; Royal College of Physicians of Ireland, Dublin, Clerk of; Royal Meteorological Society, Lond., Asst. Sec. of; Dr. H. Renney, Sunderland; Dr. J. D. Rawlings, Lond.

S.—Dr. D. W. Samways, Mentone; The Sanitary Institute, Lond., Sec. of; Mr. A. Stenhouse, Glasgow; Messrs. S. Smith and Co., Lond.; Mr. C. E. Sajous, Paris; Messrs. Street and Co., Lond.; Messrs. Smith, Elder, and Co., Lond.; Messrs. A. G. Spalding and Co., Lond.; Messrs. R. Sumner and Co., Liverpool; Mr. T. Smith, Lond.; Messrs. W. H. Smith and Son, Manchester; Mr. A. A. C. Swinton, Lond.; Society of Apothecaries of London, Sec. of; Dr. C. B. Savory, Lond.; Society of Arts, Lond.

T.—Mr. C. Truman, Nottingham; T. D. P., Preston; Rev. A. Tooth, Woodside; Mr. C. H. Tattersall, Oldham; Town Clerk's Office, Hastings, Clerk of; Mr. H. J. Thomas, Carshalton.

V.—Dr. G. C. L. Vintras, Lond.; Verax, Lond.; Vigilant, Brighton.

W.—Dr. A. McC. Weir, East Sheen; Mrs. M. E. Williams, Truro; Dr. A. R. A. Wilhelm, Barkly East, Cape Colony; Dr. W. A. Wills, Lond.; Mr. C. H. Whiteford, Plymouth; W., Lond.; Mr. S. Wand, Leicester; Mr. T. Woodruff, Withington.

X.—X. Y. Z., Lond.; X., Darlington.

Y.—Mr. E. W. Young, Weedon; *Yorkshire Post*, Leeds; Yorkshire College, Leeds, Registrar of.

Letters, each with enclosure, are also acknowledged from—

A.—Mr. P. O. Andrew, Tavistock; Ashwood House, Kingswinford, Proprietor of; Argentum, Lond.; Alpha (April 17), Lond.; Alpha, Lond.; Mr. W. H. Alger, Devonport.

B.—Miss E. F. Boultbee, Lond.; Bertram, Lond.; Bradford Infirmary, Sec. of.

C.—Mr. J. Carter, Lond.; Col. J. Crosbie, Lond.; Chamberlain Medicine Co., Desmoines, Iowa, U.S.A.; Messrs. E. Cook and Co., Lond.; Messrs. Cassell and Co., Lond.; Mr. F. W. Clarke, Manchester: Mr. J. M. Collins, Lond.; Capt. D. A. Callender, Lond.; Messrs. G. Carré et Naud, Paris; Cavey, Lond.; Dr. P. B. Considine, St. Ives, Hunts; Cymene, Lond.; Mr. W. F. Clay, Edin.; C. H. 301, Aston; Cornwall County Asylum, Bodmin, Clerk of.

D.—Mr. N. Daly, Kingston Bagpuze, Mrs Duncan, Lymington; Dr. J. Dodd, Ashby-de-la-Zouch; Dundee Royal Infirmary, Treas. of; W. C. Downs, Helensville, N.B.; Devon and Exeter Hosp., Exeter, Sec. of; D.P.H. Camb., Lond.; Mr. D. G. Dimsey, Lond.; Mrs. E. Douglas, Lond.; Mr. R. Davis, Lond.; Derbyshire Royal Infirmary, Derby, Sec. of; Dispenser, St. John's-wood.

E.—Dr. F. P. Elliot, Walthamstow; E. J. F., Liverpool; Ex, Lond.

F.—Dr. W. D. Forsyth, Eyemouth; Forceps, Hadleigh; Flintshire Disp., Holywell.

G.—Mr. W. B. Gloag, Perth; Mr. A. B. Gunstone, Sheffield; Grove House Private Asylum, Church Stretton; Messrs. R. W. Greeff and Co., Lond.; Mr. W. A. Gimber, Lond.; Gt. Yarmouth Hosp., Acent. of; Lt.-Col. H. H. Godwin-Austen, Guildford.

H.—Mr. M. Hall, Birkdale; Mr. J. Harston, Pirbright; Mr. B. H. Herbert, Uttoxeter; Messrs. R. Hogg and Son, Lond.; Hants County Asylum, Fareham, Clerk of; Dr. J. Holmes, Whitefield; Holly, Lond.; Hollinbrook House, Littleborough; Messrs. Hazell, Watson, and Viney, Lond.; Hosp. for Consumption, Brompton, Sec. of.

K.—Mr. A. Kidd, Long Reach; Mr. T. S. Keys, Ton Pentre; Dr. A. Kinsey-Morgan, Bournemouth;

L.—Mr. H. Lloyd, St. Asaph; Messrs. Lee and Nightingale, Liverpool; Messrs. Lee and Martin, Birmingham; Liverpool Royal Infirmary, Sec. of; Dr. R. Liveing.

M.—Dr. W. F. MacDonald, Auchtermuchty, N.B.; Messrs. Maythorn and Son, Biggleswade; Dr. A. G. Macdonald, Chorley; Mr. S. R. Merry, Hemel Hempstead; Mr. S. Mackey, Hodnet; Dr. F. March, Bradford; Martius, Lond.; M.B., London; M.R.C.S.E., Bildeston; M.R.S.S., Ilfracombe; Mr. H. Mason, Lond.; Meddyg, Lond.; Medicus, Lond.

N.—Dr. W. A. Newall, Hartford; Norens, Lond.; Naoim, Lond.; Nebo, Lond; Mr. Needes, Lond.

O.—Mr. F. A. Osborn, Dover; Omega, Lond.; *Oldham Standard*, Oldham.

P.—Mr. T. A. Papillon, Shanklin; Pharmacon, Lond.; Dr. Phelan, Oakamoor; Dr. V. Pendred, Streatham; Mr. E. A. B. Poole, Kidderminster; Mr. J. W. Pratt, Wivelisombe; Mr. J. Patterson, Lond.; Phenol, Lond.; Palens, Lond.; Mr. B. Powne, Chard; Permanency, Lond.

Q.—Qualified, Lond.

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